JAN-FEB 1955

VOLUME 12 NUMBER 1

The BULLETIN

American Society of Hospital Pharmacists

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SUBSCRIPTION RATE: In the U.S. $4.50 per year (six issues), single copies 75 cents; Foreign $5 per year, single copies 85 cents. CHANGES OF ADDRESS should be directed to the Division of Hospital Pharmacy, American Pharmaceutical Association, 2215 Constitution Ave. N.W., Washington 7, D. C.

The American Society of Hospital Pharmacists, an affiliate of the American Pharmaceutical Association, is a national organization devoted to the profession of hospital pharmacy and dedicated to the improvement of pharmaceutical service in the interest of better patient care in hospitals.

IN THIS ISSUE

THE BULLETIN is published bimonthly at Hamilton, Illinois, by the American Society of Hospital Pharmacists in cooperation with the Division of Hospital Pharmacy of the American Pharmaceutical Association. Editorial office at 1313 East Ann Street, Ann Arbor, Michigan. Entered as second class matter July 19, 1951 at the post office at Hamilton, Illinois. CONTRIBUTIONS will be accepted if they are of general interest to those in hospital pharmacy. The editors reserve the right to revise all material submitted, if necessary. The American Society of Hospital Pharmacists and the American Pharmaceutical Association assume no responsibility for the statements and opinions advanced by contributors to THE BULLETIN. Views expressed in the editorials are those of the editor and do not necessarily represent the official position of either the American Society of Hospital Pharmacists or the American Pharmaceutical Association.

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LETTERS

Interested in Formulary Service

DEAR SIRS: I read with special interest your proposal for a National Hospital Formulary Service in the current issue of THE BULLETIN. The need for such a service can hardly be questioned. I especially appreciate your broad approach to the problem. Your proposal that the sub-committees actively develop working formulas, for which there are few standards today, should certainly be of practical value to all hospitals.

It is my sincere belief that this project, if properly developed, can do more for hospital pharmacy at this time than any other single undertaking.

If we in Tennessee can assist in this endeavor, either as an affiliated Society, or as individuals, do not hesitate to make that known.

RALPH STONE, *President*
Tennessee Society of Hospital Pharmacists
c/o Vanderbilt University Hospital
Nashville, Tenn.

DEAR SIRS: I have read your proposal on a National Hospital Formulary Service in the September-October issue of THE BULLETIN. I would be pleased to be placed on the mailing list to receive material which would aid our hospital in setting up a formulary system. . . .

RUIDO RINDONE, *Chief Pharmacist*
St. Vincent Hospital
Santa Fe, New Mexico

Formula Developed By Ohmart

DEAR SIRS: In Volume 11, page 480 of your BULLETIN, there was a report on the Enteric Coating which seemed to indicate that this writer was the developer of that formula.

Actually, this is a reprint from a talk presented at the University of Texas, College of Pharmacy, and as reported there, the formula was developed by Professor Leslie M. Ohmart and his associates at the Massachusetts College of Pharmacy.

I trust you will see fit to give Professor Ohmart credit for this item, for he is truly deserving for developing a formula which is effective and can be used by the practicing pharmacist.

ROBERT E. ABRAMS, *Executive Secretary*
American College of Apothecaries

Commendations

DEAR SIRS: I have not been connected with hosital pharmacy since 1947 and have decided to drop my membership. Yours is a fine, healthy organization which the whole pharmaceutical profession should take as an example.

RALPH K. KRUMMENACHER
637 Barstow Pl.
Webster Groves, Mo.

DEAR SIRS: Enclosed is a money order in the amount of $4.50 for a renewal of my subscription to THE BULLETIN for the coming year.

With this letter I would like to congratulate you for an excellent publication. It has been of great benefit here in the store with its professional information and articles of general interest to pharmacy.

JAMES A. DOUGHERTY
Indiana Pharmacy
South Bend, Indiana

DEAR SIRS: I wish to thank you for the loan of the four hospital formularies which we have returned to you. These formularies proved to be of much value in helping us to plan our own formulary.

I would also like to compliment the staff of THE BULLETIN for the very fine job they are doing on this publication. Every issue has contained interesting and informative articles of much value to the hospital pharmacist.

ERIC J. THELLER, *Chief Pharmacist*
Memorial Hospital of Sandusky County
Fremont, Ohio

Contribution from Affiliate

DEAR SIRS: Before embarking on a new year of activities, the membership of the Midwest Association of Sister Pharmacists wishes to contribute their small, material token of appreciation to the ASHP for past courtesies. All of the members enjoyed the visit of our past president, Mr. Beck. For this interest shown, the members are desirous to make this little recompense to the national group . . . .

SISTER M. CHERUBIM, *O.S.F.*
Midwest Association of Sister Pharmacists
St. Joseph's Hospital
Joliet, Illinois

from the literature...

"The value of CHLOROMYCETIN in the treatment of infections due to most bacteria, the pathogenic rickettsiae, and many of the large viruses has now been well established."[1]

in typhoid fever

"Our experience...and many others all show that chloramphenicol [CHLOROMYCETIN] has an established place in the treatment of typhoid fever."[2]

in meningitis

"At the present time chloramphenicol [CHLOROMYCETIN] is recognized as a potent antibiotic whose ease of administration and prompt diffusion into serum and spinal fluid makes it a particularly useful agent in the treatment of many forms of purulent meningitis."[3]

in bacterial endocarditis

"Within ten days [after therapy with CHLOROMYCETIN was begun] there was a dramatic improvement in the patient's clinical appearance and the sedimentation rate and temperature became normal."[4]

in rickettsial diseases

"Chloramphenicol [CHLOROMYCETIN] has been used with striking success in patients with scrub typhus, murine typhus, Rocky Mountain spotted fever, and epidemic typhus."[5]

Chloromycetin®

(Chloramphenicol, Parke-Davis)

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

1. Yow, E. M.; Taylor, F. M.; Hirsch, J.; Frankel, R. A., & Carnes, H. E.: *J. Pediat.* **42**:151, 1953.
2. Dodd, K.: *J. Arkansas M. Soc.* **10**:174, 1954.
3. Hanbery, J. W.: *Neurology* **4**:301, 1954.
4. Miller, G.; Hansen, J. E., & Pollock, B. E.: *Am. Heart J.* **47**:453, 1954.
5. Keefer, C. S., in Smith, A., & Wermer, P. L.: Modern Treatment, New York, Paul B. Hoeber, Inc., 1953, p. 65.

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EDITORIAL

Opportunities For Retail Pharmacists

by DON E. FRANCKE

Several thousand opportunities exist for retail pharmacists to provide pharmacy service in small hospitals, especially to those with less than fifty beds. On page 35 of this issue of THE BULLETIN we are printing an account of how one retail pharmacist is serving a small hospital in his community. This type of service by retail pharmacists is, however, still rare enough to be called unusual.

One of the major objectives of the AMERICAN SOCIETY of HOSPITAL PHARMACISTS is to bring a well organized and efficient pharmacy service to hospitals regardless of their size or type. Thus far, major progress has been made in general hospitals with more than 250 beds and considerable improvement has been made in those hospitals with more than 100 beds. But the greatest need for better pharmacy service lies in those hospitals with less than 100 beds. The magnitude of this problem is readily apparent when one considers that two-thirds of the nation's approximately 6,600 hospitals have less than 100 beds. The task of bringing pharmacy service to these 4,400 hospitals is by no means a minor one. This is certainly an area which the A.Ph.A. could explore as a service to its members.

To those retail pharmacists who recognize the challenging opportunities which exist for them in service to small hospitals we offer the following suggestions.

1. Find out something about the organization of hospitals and the organizational position of the Pharmacy Department in hospitals. Consult the chapters on hospital pharmacy and the organization of the hospital in McGibony's *Principles of Hospital Administration*. Read the excellent chapter on hospital pharmacy written by Mr. Herbert Flack, Chief Pharmacist at Jefferson Hospital in Philadelphia, for *Remington's Practice of Pharmacy*. Obtain copies of the *Minimum Standard for Pharmacies in Hospitals, Suggested Plans for Hospital Pharmacies,* the *Comprehensive Bibliography on Hospital Pharmacy* and other pertinent literature available from the Division of Hospital Pharmacy of the A.Ph.A. and ASHP in Washington. Obtain and read back and current issues of THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. A diligent study of these references will provide a minimum background of the hospital environment and certain basic concepts so that you will be prepared to discuss pharmacy service with the administrator.

2. To determine what type of service is needed in a particular hospital, go there for at least four hours a day for two weeks and find out. Talk to the administrator, the members of the nursing staff, and the members of the medical staff. No one else can determine for you the requirements for pharmacy service in a particular hospital.

3. Based upon your findings, present a plan to the administrator under which you will agree to offer pharmacy service to the hospital. In developing this plan be sure you include other elements of pharmacy service in addition to filling prescriptions and selling drugs. Many administrators are reluctant to engage the services of a retail pharmacist because, as they say, "our local pharmacist is willing to fill all our prescriptions and to sell us drugs and supplies but he does not want to come to the hospital and give us any of the other things that constitute pharmacy service."

4. Be prepared to go personally to the hospital or to send one of your staff to take care of the service elements which should be a part of your plan. The time spent in the hospital may vary from an hour or more daily to an hour or more a week, depending upon the requirements of the individual hospital. But be sure to include personal service by a pharmacist working in the hospital as part of your total plan.

5. Include in your proposal a statement of your willingness to serve as a department head and to be concerned with all phases of pharmacy service in the hospital. After a consideration of all factors and after obtaining advice and suggestions from all concerned, recommend policies and suggest procedures for the requisition, storage, and distribution of drugs. Establish methods for the proper handling of narcotic, barbiturate, and other dangerous drugs. Review your library and literature file and, if necessary, modernize it so that you will have readily available the latest information on new as well as established drugs. Participate in the professional meetings of the medical and allied staffs at the hospital. Prepare lectures on new drugs and give them to members of the graduate and student nursing staffs and to the medical staff. If the hospital has a formal educational plan for student nurses, offer your services to teach materia medica or pharmacology.

6. If other retail pharmacists in your community put pressure on the administrator to be included in the program, help to solve his dilema. Many administrators in small communities hesitate to engage the services of one retail pharmacist for fear of repercussions from other pharmacists. Ill feeling is aroused, pressures become unpleasant, charges of discrimination are thrown about until the administrator regrets that he ever listened to a proposal regarding pharmacy service. This problem should be settled by the community pharmacists themselves. The administrator should not be placed in the middle of a professional rivalry.

The retail pharmacist's opportunity for service to small hospitals is great. We hope that these few suggestions may stimulate more pharmacists to expand their professional services to an area which is as yet almost untouched.

Three pages from the Pharmacy Operations Manual of the U.S. Public Health Service, Division of Hospitals

Division of Hospitals Operations Manual

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CHAPTER D-6 PHARMACY

DIVISION OF HOSPITALS
OPERATIONS MANUAL

PHARMACY

PART: D
CHAPTER: 6
SECTION: 2.6

SUBJECT: Labels for Pharmacy Use

.1 Section 4 of the Forms Catalog lists all labels used by the Pharmaceutical Services. Items are listed by groups rather than by form numbers. However, each label has a Stock No. to facilitate station orders. Some of the labels listed in the catalog are NOT stocked at Perry Point; these are the labels carrying station identification and should be ordered through the Division of Hospitals. — LABELS LISTED IN FORMS CATALOG

Strip labels in rolls for the use of all stations are available at the Supply Station, Perry Point, Maryland.

.2 Stations having workloads sufficient to warrant use of cut stock or shop labels as listed in Section 4 of the Forms Catalog with station imprint may request authority to use them from the Division of Hospitals. The request should include an estimated six months' supply and a list by stock number of the labels needed. These labels must be ordered in units of 1000. — STATION IMPRINT LABELS

.3 Cut labels for use with prepackaged medications dispensed on prescriptions carry 3/4-inch ungummed stub for medication identification purposes. The stub must be removed from the label proper at the time the prepackaged medication is dispensed to the patient. The stub serves as an identification of container content until the item receives a specific prescription number. The removal of the stub allows for the dispensing of prepackaged prescription items without revealing medication content to the patient. These labels are designed for outpatient office use and installations where no pharmacists are on duty, the prepackaging and labeling being performed at a hospital or clinic pharmacy. — STUB FOR MEDICATION IDENTIFICATION FOR OUTPATIENT OFFICE USE & STATIONS WHERE NO PHARMACIST IS ON DUTY

.4 The labels stocked by the Supply Station are available to all stations and will be ordered on the same requisition as drugs, chemicals, and other Class I items. They will be paid for on a reimbursement basis, the same as other Class I items, at the rate of 25 cents for 250 labels. All stations are cautioned to allow for at least a four-month minimum reorder level for SPECIAL imprint labels. — REQUISITIONING LABELS

DIVISION OF HOSPITALS
OPERATIONS MANUAL

PHARMACY

PART: D
CHAPTER: 6
SECTION: 4.1

SUBJECT: Standard Control System for Narcotics (Also applicable to Hypnotics, Alcohol and Spirituous Liquors.)

.1 This system of control over narcotics is designed to provide (a) each station with a procedure for allocating responsibility for and maintaining accurate records of the receipt and use of narcotic drugs, and (b) for a uniform and effective inventory audit of such drugs in accordance with the Harrison Narcotic Act. — PURPOSE

.2 The head nurse is responsible for maintaining an adequate supply of narcotics on the ward at all times. — ASSIGNMENT OF RESPONSIBILITIES

Each nurse who administers a narcotic is responsible for recording the required data on the "Certificate of Disposition for Narcotics, Hypnotics, Alcohol, or Spirituous Liquors," Form PHS-1435-2 (HD).

The Director of the Nursing Service is responsible for periodically checking the Narcotic Certificates of Disposition against the physical inventories and reporting discrepancies, in writing, to the Medical Officer in Charge and Clinical Director. A copy of the report shall be forwarded to the Chief Pharmacist.

The Chief Pharmacist is responsible for maintaining accurate perpetual inventory records of narcotics in his custody, which shall reflect all receipts and issues, including narcotics dispensed to the wards and clinics and individual outpatients (Form PHS-1606 (HSP) "Narcotic Perpetual Inventory Pharmacy Record") from the pharmacy, and all receipts and issues involving the pharmacy storeroom (Form PHS-1605 (HSP), "Perpetual Inventory of Narcotics, Hypnotics, Alcohol or Spirituous Liquors (Pharmacy Storeroom)").

Instructions for the use of Form PHS-1606(HD) are as follows:

a. This form is to be used by pharmacists in keeping a perpetual inventory record of all narcotics, including "exempts" in the pharmacy (not for bulk supplies in the pharmacy storeroom).

Attachments (3)
D6.4.1a PHS)1435-1) (HD)
)1435-2)
D6.4.1b PHS-1605 (HSP)
D6.4.1c PHS-1606 (HSP)

THE VALUE OF

PROCEDURAL MANUALS

FOR HOSPITAL PHARMACIES

by GEORGE F. ARCHAMBAULT

THE TOPIC ASSIGNED to me for discussion this morning is "Pharmaceutical Procedures and their Practical Application." In discussing the nature of this assignment with the members of the committee, I learned that a general discussion was wanted on the need for and the value of establishing and circulating within a hospital, and in particular, within the Pharmacy Department, a *procedural manual* for a Pharmaceutical Service, a manual spelling out in detail the Department's administrative policies, regulations, and "*modus operandi.*"

Before going into specifics and details on this subject, let me for just a few minutes, as background material, refresh our memories as to what we, as hospital pharmacists have built this past decade; then I will lead into the reasons why this subject is considered to be of administrative importance at this time, and finally, I shall attempt to give you some general suggestions as to how such a manual can be developed for your particular hospital.

GEORGE F. ARCHAMBAULT is Pharmacist Director, Chief, Pharmacy Branch, Division of Hospitals, Bureau of Medical Services, U. S. Public Health Service, Department of Health, Education, and Welfare, Washington, D. C.

Presented at Tenth Institute on Hospital Pharmacy, Storrs, Connecticut, June 1954.

Hospital pharmacists, collaborating with others in the field of hospital administration and pharmaceutical education, have in recent years through their organization, the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, developed an excellent set of objectives and standards for the operation of a hospital or clinic pharmaceutical service. These standards, four in number, namely:

1. The *Minimum Standard for Pharmacies in Hospitals;*
2. The *Minimum Standard for Pharmacy Internships in Hospitals;*
3. The hospital pharmacy Point-Rating Plan; and
4. The inspection audit questionnaire of the Joint Commission on the Accreditation of Hospitals;

have now spelled out, in a rather major way, the level of performance that hospital pharmacists, physicians, dentists, hospital administrators, patients, and trustees, expect as sound and proper for a good pharmaceutical service—standards that serve as *guide lines* for those practices that sound hospital administration call for implementation into the administration and management of hospital pharmacies.

Implementation of Standards

In 1954, and in the next ten years to come, those of us engaged in this particular specialty of pharmacy must cooperate with hospital administrators and others in the *individual acceptance and actual implementation* of these standards and policies in our specific hospitals and clinics, if we expect to continue to grow in professional stature and give to the patients the best in hospital pharmaceutical service.

Not long ago in discussing hospital pharmacy with one of the editors of a national drug journal I was told in effect that hospital pharmacists have come a long way in the last ten years through their Society and their Standards. However, this individual went on to state that when he visits some of the hospital pharmacies of the Nation, he finds much that disturbs him. For example, bulk-compounding without adequate controls, looseness in the handling of narcotics, soiled and unsightly ward medication containers and labels that, to quote him, no retail pharmacist in his right mind would dispense to a customer; dusty and dirty pharmacies, basement pharmacies with poor lighting, flooring, equipment, and facilities; hospitals without Pharmacy Committees and situations where no close liaison between the Chief Pharmacist and the Hospital Administrator and other Chiefs of Services exists. Many hospital pharmacists have a long way to go if they are to practice what is being preached, this editor stated.

I do not subscribe entirely to this picture—we have come far—Chiefs of Pharmaceutical Services are more and more thinking of their department as a service and not confining themselves to the activities within the four walls of their department. To illustrate—1669 Pharmacy and Drug Therapeutic Committees are operating in the hospitals of the Nation today, according to the June 1954 Administrators Guide issue of *Hospitals,* and from the same source I note that 2,537 hospitals out of 4,370 are reported to have *formularies.* Further, note the number of hospitals now having the Nursing Director and Chief of the Pharmaceutical Service make monthly visitations and audits of the nursing station drug supplies; note also the increasing prominence of the Chief Pharmacist on special committees such as the Planning Council and Budget Committee. Note also the place of the pharmacists on the Safety Council with special responsibilities for providing safeguard measures for the storage of cleansing agents, that might conceivably be used for suicidal purposes by patients; the inspection of fire extinguishers, emergency showers, and similar items. Note also the teaching duties that the Pharmacist now carries on and note also his place on the General Executive or Department Heads Committee. The June 1954 Statistical Guide to *Hospitals* states that 3,065 hospitals of the 5,907 hospitals reporting, 51.9 percent have *pharmacies* and that 2,097 of these hospitals employ full-time pharmacists. The number of full-time pharmacists is reported at 3,551, (note, in comparison, that membership in the ASHP is 2,176.) 3.5 percent to 4 percent of the pharmacist population of this country. I predict that within the next decade our specialty will constitute up to 10 percent of the pharmacist population of the nation, considering the rapid growth that is occurring in the business of hospitals and clinics—now rated as the fifth largest industry in the U. S.

However, if one of our professional colleagues, for example, the editor that I have referred to, makes comments such as I have just cited, others might also be thinking in a somewhat similar vein.

How about your pharmacy and mine? Could we be criticized for preaching one message and operating under old drug room standards or less. The best way to know the truth about one's pharmacy is to compare it against the Point-Rating Plan. Here is a sound way to measure one's pharmacy against a good standard and learn one's proper rating in the science of things. As administrator of a department, one must review one's operation in this fashion in the light of the elements of the hospital pharmacy standards. Those of us that operate intern programs must also think in terms of the internship standards. Unless we continually undergo this cross-examination of our departments either by ourselves or with the administrator of the hospital, we fail in part at least as department heads.

Finally as background material let us note that the hospital associations and hospital journals have, during the past two decades, repeatedly emphasized to hospital administrators the need for adoption of sound business organization and principles in the running of the hospital and the various departments that constitute the hospital. MacEachern, McGibony, Bachmeyer, and Sloan all have outstanding texts in this area. The various disciplines operating in hospitals, such as Medical Records, Nursing, Dietetics, Dental, Medical, Surgical, Hospital Administration, Pharmacy, and others have all, in the past few years made available to their members a wealth of literature in this direction. Consider for example, the 2,000 and more articles available on hospital pharmacy literature as noted in the Bibliography made available in THE BULLETIN in recent years. Today no one in a position of responsibility as a chief or as a deputy chief of a pharmaceutical service, whether he be in a one-man hospital pharmacy or a hospital employing many pharmacists can state that ample good material is not readily available to him in the hospital pharmacy literature of today. Over and above this, one may become self-educated in the principles of hospital pharmacy organization and management and in hospital administration itself by studying not only the literature but also by attending institutes such as this, seminars, and local ASHP Chapter activities.

Sound Administration Needed

I now come to the serious gap or missing link that bogs down many of us today, the reason for this paper, that is a lack of communications that somehow is holding back the actual application in certain hospitals and clinics of the principles of sound hospital pharmacy administration. This "breakdown" in communications and in the application of principles is not peculiar to pharmacy alone. It is a major problem in all administrative and management areas. How to get across to the chiefs of the services and especially to those inter- and intra-departmental personnel involved, the departmental program, its policies and procedures and the actual application of these things to everyday activities, is a problem of major concern to department heads and administrators today.

It is in this connection that a fairly new tool of management in the hospital field—*the Procedural Manual*—is now beginning to emerge and play an important part in hospital administration. Manuals are now being developed by leaders in hospital management to formalize operating procedures and to emphasize the *how* of carrying out hospital administration. For example, Father John J. Flanagan, Executive Director of the Catholic Hospital Association, in writing the introduction to one of the first administrative procedural manuals to make its appearance in the hospital field—*The Administrative Manual of St. Mary's Hospital* (Rochester, New York), stated and I quote—

"In the *application* of the principles either in organization or for administrative purposes, different patterns have emerged each intending in its own setting to achieve as efficiently as possible the purposes of the hospital, that is, the care of the sick, the education for the professions and the public research to increase our knowledge of medicine and hospital practice. Variations in hospitals by types of service, by size of hospital, because of the extent of educational activity and other conditions determine just how principles can best be *applied.*"

"The purpose of a *procedural manual,*" Father Flanagan goes on to state, "is to *set down in writing* all administrative and operating *procedures,* in general and for departmental guidance including organization and policy matters. Where each department in a hospital develops such a program, department director and staff members obtain clear and definitive information concerning the requirements and procedures of all departments of the hospital." "Such a manual," Father Flanagan points out, "serves most effectively as a vehicle for all level of staff members; it serves to bring about integration of interest establishing the basis for harmonious interdepartmental relationships. Its educational value for improving administration and more efficient care of the patient cannot be over emphasized. It demonstrates unmistakably by diagrams, flow charts, directives, and policy declarations *how to do the job.*"

Developing a Procedural Manual

Your hospital administrator may soon be calling upon you along with other department heads to

aid him in developing an overall procedural manual for your hospital, your task will be, of course, to develop the pharmacy department section, or you may wish to develop a procedural manual on your own for his information and for the guidance of your staff.

Many well organized nursing and dietetic services already have manuals on specific nursing and dietetic procedures. These are manuals that clearly inform those in operations, the specific procedures to follow at that institution, for a specific task or function. For example, here is a nursing procedure manual developed by the nursing service of the Boston Public Health Service Hospital. In it are covered such things as (1) the maintenance of the environment, such as the care of the equipment on the wards; (2) general hygiene and comfort of the patient, such as how to give a bed bath and how to make an occupied bed; (3) observing and recording systems, such as how to take blood pressures and temperatures; (4) assisting with diagnostic procedures, such as how to collect specimens; and (5) general therapeutic procedures, such as the administration of medication; orally, subcutaneously, by inhalation, rectally, by inunction and intravenously and five other key topics with multisubheadings.

In this procedural manner the Director of Nurses, her deputy, ward charge, and staff nurses have standard procedures for their activities within the institution, procedure standards which apply to actual operations, to the nursing standards and to principles of good nursing care. This results, obviously, in better patient care and in the economy of personnel material.

The Point-Rating Plan for Hospital Pharmacies under the title "Policy and Regulations" checks on the presence of a pharmacy department *procedural manual.* This section gives 50 points or 20 percent for such a *manual* out of a total score of 250 points, (the 100 per cent) for "Policies and Regulations." It would appear that administration is beginning to demand the presence of such manuals. Proof of this is its valued use by other hospital disciplines and the value placed on this technic by administrators trained in evaluating hospital functions.

I promised early in this paper to attempt to tell you just how to go about preparing such a manual for your department. In my opinion, such a manual should be in two sections, one for professional techniques and procedures, such as bulk-compounding practices for liquids, ointments, creams, and similar items, the preparation of isotonic buffered collyria, surgical fluids, etc. The other, and more important, section of the manual, should be devoted to the administrative practices of the department. I refer here to such things as the organization chart showing the position of the pharmacy under the clinical director or administrator, job descriptions of all pharmacy positions from the chief to the helpers, the inspection of nursing station medications, the control of expiration dated items; narcotics, hypnotics, spirituous liquor and ethyl alcohol controls; daily, monthly, and annual reporting procedures on work loads, drug costs per inpatient day and outpatient visit; inventories and stock turns; inventory control procedures, requisitioning and purchasing procedures, formulary management, pharmacy committee membership responsibilities and functions and other kindred management subjects; such as emergency off-hour service, nursing-pharmacy relationships, handling outpatients, charges, ward pick-up and delivery service, hours of operation, etc.

Manual for U.S.P.H.S. Hospitals

Those of us in the United States Public Health Service responsible for the pharmaceutical services of its hospitals and clinics instituted such a procedural manual several years ago.

This manual, in our opinion, *applies the principles* of hospital pharmacy administration as spelled out in the four landmarks previously mentioned. These principles have been applied to the daily routine hospital pharmacy activities. The original manual was a 124 page affair, a copy of which is given to every pharmacy officer as he enters into hospital pharmacy duty. With such a manual each pharmacist knows the *how* of his job. He knows what is expected of him and of the pharmaceutical service. I have here a copy of this manual for your inspection.

This copy was our first attempt at a procedural manual. It has been favorably received by our pharmacists and administrators. We have this past month finished revising and enlarging this manual to cover many other areas not in the first edition. The revision carries more recommended formulas on bulk-compounding, the revised reporting system (copies of forms have been given to you this morning); determining the sensitivity of balances periodically, safety precautions, such as the installation of fire showers, the use of rubber gloves in handling antibiotics, and the use of explosive proof goggles and face gear for solution room workers, fire safety procedures such as extinguishers, their care, use and types; the use of fire blankets; the handling of P.R.N. orders, the handling of inpatient medications, and procedures for dispensing of medications to patients leaving the hospital; pre-packaging and bulk-compounding controls, the duties of the individual pharmacy committee members, formulary policies and other subjects. We expect the release of this revised

manual sometime in September or October. Possibly you might be interested in hearing some of the policy statements that appear in the manual.

I. *Policy Concerning Expiration of Pro Re Nata Orders*

1. All P.R.N. orders for narcotics shall expire at 10 a.m. on the fourth day.

2. All P.R.N. orders for medications other than narcotics expire at 10 a.m. on the seventh day unless renewed.

II. *Methods for Disposal of Unusable Drugs, Chemicals, etc.*

Occasionally, drugs, chemicals, and similar items must be destroyed because of contamination and other reasons.

Such items should be turned over to the pharmacy for disposal. Disposition shall be made by a method deemed appropriate by the chief pharmacist, considering the character of the substance or substances to be destroyed.

Methods Commonly Employed Are:

1. Placing chemicals in solution for disposal into sewer system.
2. Incineration.
3. Burial.

Obviously, care must be exercised in the selection of the method and its use. Easily oxidizable agents, reducing agents, and stoppered containers should not be placed in the incinerator if the least chance for an explosion is possible. Solutions of chemicals capable of reacting to form insoluble precipitates or injury to plumbing should not be poured into the sewer system, and burial should be at spots unfrequented by children or livestock.

The responsibility for the selection of the proper method and supervision of the actual destruction is that of the chief pharmacist.

III. *Medications for patients leaving the hospital* shall be ordered on a written prescription and dispensed from the pharmacy. Medications shall *not* be given to such patients from nursing station medication supplies.

IV. *Pharmacy Committee*—It is essential that the Pharmacy Committee consist of Chiefs or Deputy Chiefs of Services with the Clinical Director or Chief of Medicine serving as Chairman and the Chief Pharmacist as Recording Secretary. Membership to be limited to ten persons. Nursing and administrative representation is permitted but on non-voting membership basis only.

V. *Pharmacy Supervision*—The Chief Pharmacist and the Chief Nurse shall be vested with authority to visit each nursing station at least once each month to determine the status of drug supplies and to remove outdated items, excess supplies, items needing label renewals, new containers or closures and items no longer of therapeutic value.

VI. *Borrowing Narcotics*—When a ward, outpatient department, or service depletes its supply of narcotics or hypnotics at hours when the pharmacy is closed, the supplies may be transferred from another ward, outpatient department or service. The transfer will be effected in the manner described below using Form PHS-1435-3 "Emergency Transfer of Narcotics and Hypnotics". . .

VII. *Standard Containers*—Standard amber colored prescription containers will be used for prepackaging and prescription dispensing.

VIII. *Pharmacy Stores*—Pharmacy stores are to be maintained in a separate area under the jurisdiction of the Chief Pharmacist. Drug supplies, considered as stores, shall be arranged in simple alphabetical order with the exception of gallonage, perishables, narcotics, hypnotics, alcohol and large bulk items. For identification purposes, shelf labeling of stores shall be instituted. Shelf labeling shall provide the name, strength, unit, stock number and minimum level or re-order point. "Shelf Stripping" insures a definite width of space on a shelf for an item.

IX. *Retention of Records*

Prescription Blanks	2 years
Pharmacy Operations, Monthly Report	2 years
Pharmacy Operations, Annual Summary	10 years
Pharmacy Formulation on Control Record	Until revised or formula discontinued.
Narcotics Records	2 years
Pharmaceutical Bulk-compounding Worksheet	2 years
Prescription Check	Destroy after purpose is served

X. *Standard System For the Control of Expiration Dated Drugs, Biologicals, etc.*

The manual states in part under this section "The Chief of the Pharmaceutical Service will designate the responsibility for checking the *Biological Control Record* against physical inventories to one individual in the department. The check will be made on the first day of each month and the inspector shall date and initial the record upon completion of the inspection.

XI. *Preventive Measures Against Penicillin and Streptomycin Contact Dermatitis*

Rubber gloves should be worn whenever the antibiotics, syringes and needles used in their administration are handled. The hands should be washed before and after the gloves are worn.

The sterilizers used in the preparation of the syringe and needles should be allowed to cool before they are opened in order that there will be no exposure to the emanating steam. It is believed that inadvertent nebulization during sterilization might be an etiological factor.

From all of this, one sees how a procedural manual *applies* principles of standards and acquaints departmental personnel with hospital and departmental activities and procedures. A good manual tells *how* a certain task is to be done—and what *not* to do.

When one considers that pharmaceutical services now exist in over 51 percent of the nation's hospitals and that five percent of the total cost of hospitalization goes for items connected with pharmaceutical services, one realizes that the time is now here to introduce every sound system and procedure designed to give the patient better care at the minimum cost in labor and material. As a management aid to reach this objective, I strongly recommend to you the adoption of a Procedural Manual, if you do not have one.

SHOULD THE PHARMACY HAVE 24 HOUR SERVICE?

by NORMAN BAKER

As TODAY'S HOSPITAL prepares for an enlarged medical care program in a more competitive economy, all the administrative personnel at the division and departmental level must give attention to all services being rendered which are considered essential. The key responsibilities of each department should be re-appraised and the demarcations of their scope revised in the best interests of the patient and the hospital. The desire for convenience and the dictates of tradition and habit must be redirected toward the real necessities of patient care.

Before any discussion of the problems incident to the study of a twenty-four hour pharmacy service may be undertaken, it should be agreed that a comprehensive and functional formulary system is essential to an economically adequate pharmaceutical service. A genuine desire must also be demonstrated by the Hospital Administration, the members of the Medical Board, the Nursing Service and all other related key service personnel, to achieve a more efficient, economic and cooperative inter-relationship with respect to their routine function.

With the proper attitudes established and the goal well defined, some specific facts of the night pharmacy service question may then receive attention.

Determine True Cost

The true cost of maintaining a twenty-four hour pharmacy service must be determined. This cost must then be reconciled to the need for such a service. If the night pharmacist is paid overtime, the extent to which this cost increases the departmental budget must be determined. If the night service is accomplished by the rotation of departmental personnel on a planned schedule with compensatory time off, then the loss in man-hours should be ascertained with respect to the decrease in the daytime departmental efficiency.

Great insight may be obtained into the real need for an on-call pharmacist if a detailed record is kept of all medications requested during the night period. From this information an analytical study will determine if correct and sufficient use is being made of existing service routines, and if any inadequacies exist in the routine day service of the pharmacy. Omissions in the hospital formulary may also be found as shown by repeated requests for medications not yet included in the formulary.

If the hospital has a formulary, it is of utmost importance that all members of the professional staff understand the functions of the formulary system. Each staff physician should make routine use of the accepted medications and display his interest in the compendium by the frequent suggestion of additions and deletions to the Formulary Committee.

Floor Stock Control

A standard comprehensive printed requisition sheet should be available for use by all departments and nursing units ordering drugs. Such a form should reflect the formulary in the variety of medications listed and promote the development of drug stock self sufficiency on the part of the ordering department.

Such a requisition form would allow more efficient and rapid dispensing of floor stock from the pharmacy. It would provide an accurate method for the procurement of data on daily drug requirements from which to arrange alternate day drug deliveries and eliminate quantity floor-stock orders on Saturdays and Sundays.

This printed order blank would permit individualized standardization and centralization of

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NORMAN BAKER is Apothecary-In-Chief at The New York Hospital, New York, N. Y.

Presented at the Annual Meeting of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, Boston, Mass., August 23, 1954.

drug stocks on nursing units, thereby obtaining better floor inventory control. Each nursing unit could also use the form to assist in the successful delegation of drug stock ordering to the student or ward manager.

The pharmacy stock requisition would assist each nursing station to develop a standard order quantity for each medication to cover a definite period of time, such as forty-eight or seventy-two hours. This same procedure could apply equally well to all medication orders originating from private and semi-private pavilions, and promote the same degree of stock control and reduction of time consuming drug credits. Any deviation from the standard order quantity should be justified by an explanatory statement written on the face of the order by a responsible person.

After Hour Services

The function of the hospital to render twenty-four hour aid to the acutely ill and injured of its community is recognized. The degradation of a twenty-four pharmacy service however, into a dispensary for a night clinic, is both wrong and unnecessary, unless required by special conditions prevailing in the community.

It is well to emphasize at this point that barring special patient care situations, any consideration of a twenty-four hour pharmacy service should not be construed as a necessity to any department which is not concerned with the immediate medication needs of the inpatient.

In the absence of a twenty-four hour pharmacy service and in recognition that there shall be situations arising from time to time which will be considered emergent; it will be necessary for the pharmacist to establish a night drug closet to contain a group of medications maintained in accordance with the need and under the guidance of a flexible policy formulated and periodically reviewed by the Formulary Committee of the hospital.

Without the availability of the on-call pharmacist, it should be accepted policy that absolutely no other personnel, except the Nursing Supervisor on duty, (with express permission if possible from a representative of the administration), shall enter the pharmacy after it is closed. In anticipation of the exception however, a locator system, familiar to those concerned, should be available.

This question of twenty-four hour pharmacy service stems from a need to meet emergencies. A definition which I feel is most apropos to this summary states that an emergency is a situation which the man of wisdom always anticipates.

The formulary system and a well defined pharmacy policy, diligently applied by the pharmacist and understood and utilized by all other department personnel, could well be the wisdom referred to in this definition.

Non-Pharmaceutical Preparations

The formulas and procedures outlined on the following pages are from many sources and the author takes no credit for the vast amount of work which has been required to develop these and similar formulas. Inclusion or omission of a formula or a procedure does not mean that it is the 'best' or 'not recommended'. It means rather, that the information presented on the following pages was that familiar to the author at the time it was compiled. The formulas and procedures outlined here have been used successfully. *However, it is suggested that you check each formula carefully and that small quantities be prepared until you are satisfied with the finished product.*

by GROVER C. BOWLES

Sodium Free Baking Powder

Potassium Bicarbonate U.S.P.,	39.8 Gm.
Starch U.S.P.	28 Gm.
Tartaric Acid U.S.P.	7.5 Gm.
Potassium Bitartrate N.F.	56 Gm.

Triturate the ingredients together in a mortar. Package in small, tightly closed containers.

Room Deodorant

Camphor U.S.P.	18 Gm.
Peppermint Oil U.S.P.	6 ml.
Eucalyptol U.S.P.	6 ml.
Lavender Oil M.M.&R.	6 ml.
Gentian Violet Solution, 1%	4 ml.
Isopropyl Alcohol N.F., to make	4,000 ml.

Mix the ingredients together and filter if necessary.

Electrode Paste

Sodium Chloride U.S.P.	300 Gm.
Potassium Bitartrate N.F.	15 Gm.
Butylparaben	0.3 Gm.
Tragacanth U.S.P. (Powder)	35 Gm.
Propylene Glycol U.S.P.	90 ml.
Pumice N.F. (fine powder)	480 Gm.
Distilled Water,	1,000 ml.
to make about	1,900 Gm.

Dissolve the sodium chloride, potassium bitartrate and butylparaben in the boiling distilled water. Mix the tragacanth with the propylene glycol and add to the hot saline solution. Stir rapidly until a gel is formed. Add the pumice and mix again until a uniform paste is obtained. Strain through muslin and package in 4 ounce ointment jars.

GROVER C. BOWLES is Associate Administrator, Memorial Hospital Association of Kentucky, Inc., Washington, D. C.

Presented at the Institute on Hospital Pharmacy held at the University of Connecticut, June 1954.

Sodium Hypochlorite Laundry Starch

Perchloron	3.75 lb.
Soda Ash, commercial	2.5 lb.
Water, to make	7.5 gal.

Dissolve the Perchloron and the soda ash separately, each in about three gallons of water. Mix the two solutions and make up to volume with water. Mix again and allow to stand for several hours. Siphon off the clear supernatant liquid. This process should be carried out in glass or earthenware vessels.

The final concentration of available chlorine is about 2.8 percent. When used as a laundry bleach, this solution is usually used in the proportion of 15 ml. to each gallon of water.

The stability of this product is improved by the addition of a slight excess of soda ash. Amber bottles should be used for packaging.

Perchloron is a brand of nearly pure calcium hypochlorite which is marketed by the Pennsylvania Salt Company. The 3.75 lb. tin is a convenient size for handling; however, larger size containers are available. Other brands of high-test sodium hypochlorite may be used in the place of Perchloron.

Skin Marking Solution

Resorcinol U.S.P.	37.8 Gm.
Basic Fuchsin (National Aniline)	6.7 Gm.
Phenol U.S.P.	20. Gm.
Acetone U.S.P.	28 ml.
Alcohol U.S.P.	55 ml.
Distilled Water, to make	500 ml.

Place the ingredients in a glass bottle of suitable size, close tightly and shake. Allow to age for several days, shaking occasionally. Filter before dispensing.

This preparation is used to outline the area for radiation therapy and for other purposes where it is necessary to mark the skin.

Copying and Record Ink

Tannic Acid N.F.	23.4	Gm.
Gallic Acid N.F. VII	7.7	Gm.
Ferrous Sulfate U.S.P.	30	Gm.
Diluted Hydrochloric Acid U.S.P.	25	ml.
Phenol U.S.P.	1	Gm.
Soluble Blue C.I. 707*	3.5	Gm.
Distilled Water, to make	1,000	ml.

Dissolve the tannic acid, gallic acid, ferrous sulfate, phenol and soluble blue in the distilled water. Add the hydrochloric acid and allow to age in a tightly closed glass container for several days. Filter and pass sufficient distilled water through the filter to make 1,000 ml.

This ink meets the Federal Specification TT-I-521 for copy and record ink.

Standard Writing Ink

Gallic Acid N.F. VII	10	Gm.
Ferrous Sulfate U.S.P.	15	Gm.
Tartaric Acid U.S.P.	1	Gm.
Soluble Blue C.I. 707*	3.5	Gm.
Distilled Water, to make	1,000	ml.

Dissolve the ingredients in the distilled water in the order listed. Age for several days in a tightly closed glass container. Filter and pass sufficient water through the filter to make the final product measure 1,000 ml.

This ink meets the Federal Specification TT-I-563 for writing ink.

Styptic Powder

Thymol Iodide U.S.P.	50	Gm.
Alum N.F. (potassium)	50	Gm.

Triturate the powders together in a mortar until a fine powder is obtained.

Oily Nail Polish Remover

Ethyl Acetate technical	50	ml.
n-Butyl Phthalate technical	40	ml.
Castor Oil U.S.P.	10	ml.

Mix in the order listed and package in small, tightly closed containers. Caution: Flammable.

Nicotine Stain Remover

White Wax U.S.P.	10	Gm.
Liquid Petrolatum U.S.P.	10	ml.
Pumice N.F. (fine powder)	45	Gm.
Sodium Borate U.S.P.	10	Gm.
Distilled Water	25	ml.
Perfume, as desired		

Melt the white wax on a water bath, add the liquid petrolatum and heat to 70 degrees C. Dissolve the sodium borate in the distilled water and heat to 70 degrees C. Gradually add this solution to the melted mixture and stir rapidly until cooled to about 50° C. Then incorporate the pumice and levigate until it is well dispersed.

Denture Adhesive

Tragacanth U.S.P. (fine powder)	100	Gm.
Cinnamon Oil U.S.P.	1	ml.

Place the tragacanth powder in a mortar and add the cinnamon oil dropwise, triturating thoroughly after each addition.

For use in holding dentures in place, a small amount of the powder is sprinkled on the denture immediately before placing it in the mouth.

Foot Cream

Methyl Salicylate U.S.P.	40	ml.
Menthol U.S.P.	1	Gm.
Camphor U.S.P.	5	Gm.
Hydrophilic Ointment U.S.P., to make	100	Gm.

Mix the methyl salicylate, menthol and camphor together until liquefied. Incorporate with the hydrophilic ointment. Package in small, tightly closed containers.

Rosin Tincture

Rosin, N.F.	500	Gm.
Basic Fuchsin (National Aniline)	0.2	Gm.
Isopropyl Alcohol, N.F., to make	4,000	ml.

Dissolve the rosin and basic fuchsin in the isopropyl alcohol by agitation. Allow to stand for several days and decant the clear solution.

This preparation is used to replace compound benzoin tincture in preparing the skin for the application of adhesive plaster. The basic fuchsin is added to outline the area covered.

Glassware Cleaning Solution

Sulfuric Acid, technical	2,400	ml.
Potassium Dichromate, technical	1,900	Gm.
Water	700	ml.

Dissolve the potassium dichromate in the water with the aid of heat. Cool. Cautiously add the sulfuric acid in small portions. Cool final mixture before bottling.

Glassware Cleaning Solution

Liquid Soap 10%	2,000	ml.
Sodium Pyrophosphate, technical	40	Gm.
Sodium Lauryl Sulfate U.S.P.	20	Gm.
Distilled Water, to make	4,000	ml.

Dissolve the sodium lauryl sulfate and sodium pyrophosphate in the distilled water with the aid of heat and add the soap solution.

Kaiserling's Solutions

A

Formaldehyde Solution U.S.P.	600	ml.
Potassium Nitrate U.S.P.	45	Gm.
Potassium Acetate N.F.	80	Gm.
Distilled Water	3,000	ml.

Dissolve the salts in the distilled water and filter.

B

Alcohol 80%

C

Chloral Hydrate U.S.P.	50	Gm.
Potassium Acetate N.F.	300	Gm.
Glycerin U.S.P.	600	ml.
Distilled Water	3,000	ml.

Dissolve the salts in the distilled water, add the glycerin and filter.

Kaiserling's solutions are used for preserving museum specimens.

*Soluble Blue C.I. 707 is available from the General Dyestuff Corporation, 435 Hudson St., New York, N.Y.

Fixing Fluid For Insects

Alcohol U.S.P.	400	ml.
Ethyl Acetate N.F.	150	ml.
Benzene, pure	55	ml.
Distilled Water, to make	1,000	ml.

Mix in the order given. This preparation is used as a clearing and relaxing fixative solution for the study of insect anatomy.

Embalming Fluid

Formaldehyde Solution N.F.	550	ml.
Propylene Glycol U.S.P.	125	ml.
Sodium Borate U.S.P.	125	Gm.
Boric Acid U.S.P.	50	Gm.
Eosin Solution 1%	3	ml.
Potassium Nitrate U.S.P.	125	Gm.
Distilled Water, to make	4,000	ml.

Dissolve the sodium borate, boric acid and potassium nitrate in about 2,500 ml. of distilled water. Add the propylene glycol, formaldehyde and eosin solution. Mix well and filter, passing sufficient water through the filter to make the product measure 4,000 ml.

Window Cleaner

Sodium Lauryl Sulfate U.S.P.	2	Gm.
Isopropyl Alcohol N.F.	1,200	ml.
Distilled Water, to make	4,000	ml.

Mix. Filter if needed. Solution may be colored with a few drops of methylene blue solution if desired.

Scouring Powder

Trisodium Phosphate, technical	125	Gm.
Sodium Lauryl Sulfate U.S.P.	50	Gm.
Powdered Soap	125	Gm.
Precipitated Calcium Carbonate, technical	200	Gm.

Reduce the ingredients to a fine powder and mix thoroughly. If a more abrasive powder is desired, part of the calcium carbonate may be replaced with very fine pumice. Perfume may be added if desired.

Metal Polish

Petroleum Benzin, technical	1,860	ml.
Oleic Acid, technical	10	Gm.
Kaolin N.F.	210	Gm.
Triethanolamine Oleate, technical	10	Gm.
Stronger Ammonia Solution, technical	30	ml.
Water, to make	4,000	ml.

In one container mix petroleum benzin and oleic acid. Dissolve the triethanolamine oleate in the water and add to the kaolin. Mix thoroughly and add the petroleum benzin solution stirring rapidly until a uniform, creamy emulsion results. Add the ammonia solution and mix well. Package in eight ounce square bottles with shake well labels.

Floor Oil

Light Liquid Petrolatum U.S.P.	2,000	ml.
Petroleum Benzin, technical	1,000	ml.
Turpentine, technical	1,000	ml.

Mix. Store in tightly closed containers in a cool place remote from fire.

Door Stop Fluid

Propylene Glycol U.S.P.	2,500	ml.
Isopropyl Alcohol N.F., to make	4,000	ml.

Mix.

Sweeping Compound

White Sand	2,500	Gm.
Clean Sawdust	1,250	Gm.
Light Liquid Petrolatum U.S.P.	750	ml.

Mix in the order listed. Perfume and color may be added if desired.

This sweeping compound is intended for use on concrete, terrazzo, stone and hardwood floors. Should not be used on floors which are likely to be damaged by the oil content.

Bed Bug Spray

Mercury Bichloride U.S.P.	180	Gm.
Methanol, technical	2,000	ml.
Water, to make	4,000	ml.

Dissolve the mercury bichloride in the methanol and water. Color with methylene blue or other color as desired. Caution: Poison.

D. D. T. Spray

D. D. T.	200	Gm.
Acetone, technical	500	ml.
Liquid Petrolatum U.S.P.	300	ml.
Petroleum Benzin, technical, to make	4,000	ml.

Dissolve the D. D. T. in the acetone and add the petroleum benzin. Filter, add the liquid petrolatum and make up to volume with petroleum benzin. Caution: Poison

Flea Powder

Boric Acid U.S.P. (powder)	20	Gm.
Sublimed Sulfur N.F.	15	Gm.
Naphthalene, technical (powder)	15	Gm.
Pyrethrum N.F. (powder)	50	Gm.
Hedeoma Oil (Pennyroyal)	1	ml.

Mix the powders by trituration, then add the oil dropwise, triturating after each addition. Sieve if necessary and package in shaker cans.

Allergenic reactions and contact dermatitis to pyrethrum are not uncommon. Equipment and utensils used in the preparation of this product should be carefully cleaned immediately following use.

Animal Shampoo

Liquid Soap 20%	250	ml.
Propylene Glycol U.S.P.	25	ml.
Alcohol U.S.P.	25	ml.
Phenol U.S.P.	5	Gm.
Eucalyptol U.S.P.	5	Gm.
Distilled Water, to make	500	ml.

Dissolve the phenol and the eucalyptol in the alcohol and mix with the propylene glycol. Add this solution to the soap solution and mix thoroughly. Add sufficient distilled water to make the product total 500 ml.

Dog Repellent

Wool Fat U.S.P.	50	Gm.
n-Amyl Mercaptan, technical	100	ml.
Creosote N.F.	20	ml.
Isopropyl Alcohol N.F., to make	1,000	ml.

Dissolve the wool fat in the isopropyl alcohol and add the other ingredients. Mix well.

This preparation is used as an aid in keeping dogs away from shrubbery.

Depilatory For Animals

Barium Sulfide, technical	150	Gm.
Sodium Lauryl Sulfate U.S.P.	50	Gm.
Propylene Glycol U.S.P.	100	ml.
Water, to make	500	ml.

Mix the propylene glycol with the water and dissolve the sodium lauryl sulfate in this mixture with the aid of heat. Triturate the barium sulfide in a mortar until a fine powder is obtained. Add the aqueous mixture and triturate until a smooth paste is obtained.

Compound Dimethyl Phthalate Solution U.S.P.

Dimethyl Phthalate	60	Gm.
Ethohexadiol	20	Gm.
Butopyronoxyl	20	Gm.

Dissolve the ethohexadiol and the butopyronoxyl in the dimethyl phthalate and mix thoroughly.

This formula was developed during World War II and is applied topically as an insect repellent.

Leather Dressing

Wool Fat U.S.P.	30	Gm.
White Wax U.S.P.	5	Gm.
Castor Oil U.S.P.	12	Gm.
Sodium Stearate U.S.P.	3	Gm.
Distilled Water	50	ml.
Cedar Oil	10	ml.

Melt the wool fat, white wax and castor oil together and adjust the temperature to 70° C. Dissolve the sodium stearate in the distilled water with the aid of heat and adjust the temperature to 70° C. Mix this solution with the melted fats and stir until cool. Final product has a semisolid consistency.

This product is used in cleaning and preserving leather bound books.

Paint Brush Cleaner

Kerosene	1,000	ml.
Oleic Acid, technical	500	Gm.
Stronger Ammonia Solution, technical	125	ml.
Alcohol U.S.P.	125	ml.

Mix the kerosene with the oleic acid and the ammonia solution with the alcohol. Add the alcohol-ammonia solution to the kerosene-oleic acid mixture with constant stirring until a smooth uniform product results.

To clean paint brushes, place in the mixture overnight and then wash thoroughly with warm water.

SOURCES OF INFORMATION

Books

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Easton, Pa.

National Formulary, Ninth Edition
Mack Publishing Company

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Mac Nair Dorland Co.
254 W. 31st. Street
New York 1, N. Y.

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Mac Nair Dorland Co.

Sanitary Chemicals, Schwarcz
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Merck and Company, Inc.
Rahway, N. J.

Drug and Cosmetic Review
Drug and Cosmetic Industry
101 W. 31st. Street
New York, 1, New York

Modern Cosmetics, Chilson
Book Dept. Drug and Cosmetic Industry

Chemical Formulary (set of several volumes) Bennett
Chemical Publishing Company
212 Fifth Avenue
New York, New York

Drug and Specialty Formulas, Belanger
Chemical Publishing Company

Money Saving Formulas
Blakiston Publishing Company
1012 Walnut Street
Philadelphia, Pa.

Condensed Chemical Dictionary
Reinhold Publishing Corporation
330 W. 42nd Street
New York 18, N. Y.

Pharmaceutical Recipe Book, out of print
American Pharmaceutical Association

Inks, Waters
National Bureau of Standards Circular 426
Superintendent of Documents
U. S. Government Printing Office
Washington 25, D. C.

Control of Odors, Weaver
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Journals

THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

The Journal of the American Pharmaceutical Association, Practical Edition.

The Journal of the American Pharmaceutical Association, Scientific Edition.

Drug and Cosmetic Industry, Published by the Drug and Cosmetic Industry.

Soap and Chemical Specialties, Published by the Mac Nair Dorland Company.

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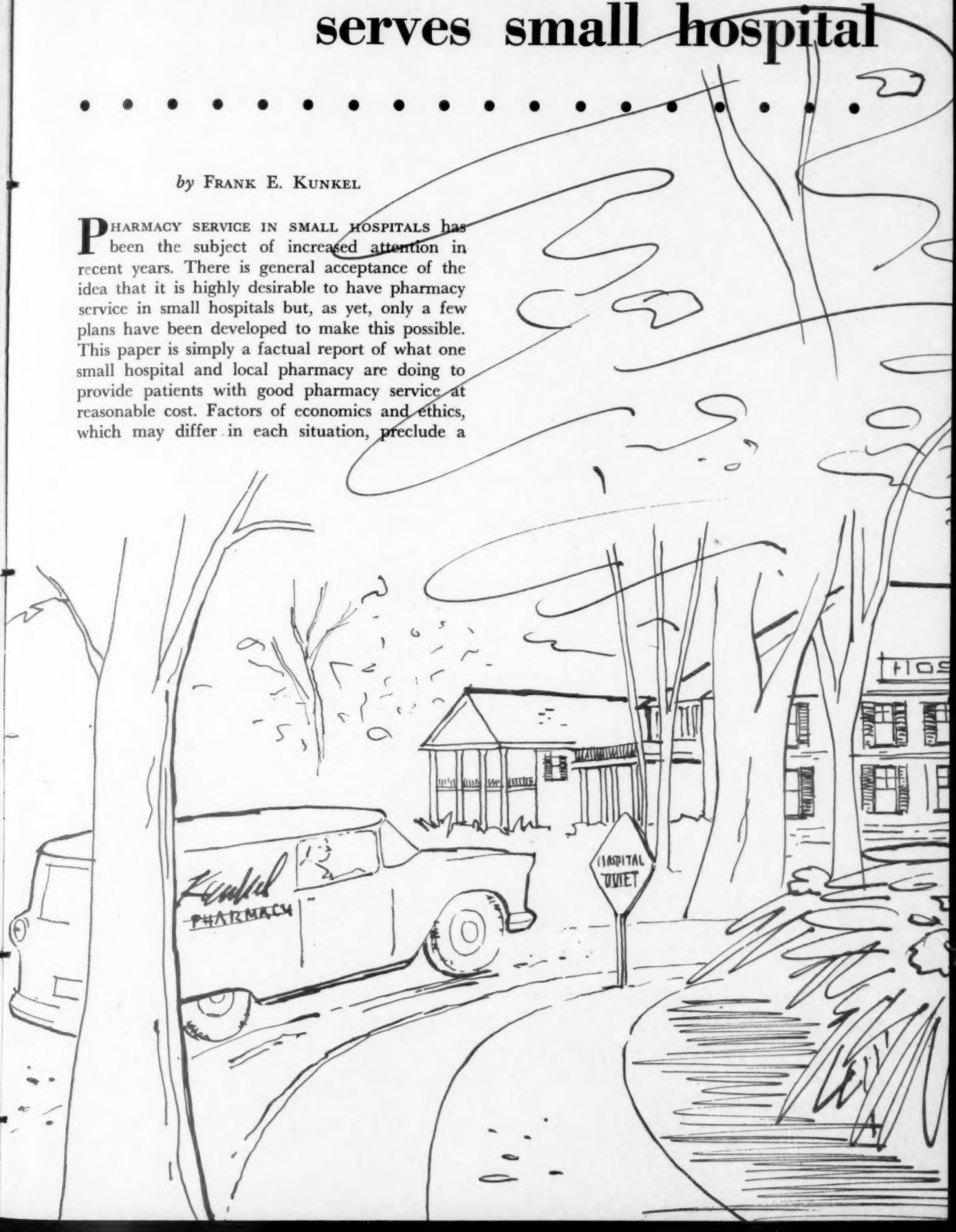
Retail pharmacist serves small hospital

by FRANK E. KUNKEL

PHARMACY SERVICE IN SMALL HOSPITALS has been the subject of increased attention in recent years. There is general acceptance of the idea that it is highly desirable to have pharmacy service in small hospitals but, as yet, only a few plans have been developed to make this possible. This paper is simply a factual report of what one small hospital and local pharmacy are doing to provide patients with good pharmacy service at reasonable cost. Factors of economics and ethics, which may differ in each situation, preclude a



Pharmacy service to America's thousands of small hospitals is a necessity which is a challenge to retail practitioners.

single, simple solution of the question. Thus, there is no thought of suggesting that our experience will provide the answers for all cases.

Introduction

Our Lady of Mercy Hospital is a 54-bed institution on the outskirts of Cincinnati serving its immediate vicinity and a number of small towns adjacent to the eastern edge of the city. Kunkel Apothecary, which cooperates with the hospital, is an independently operated suburban pharmacy located about two miles distant. The pharmacy sends a pharmacist to the hospital every afternoon to fill drug orders, compound prescriptions, and to prepare stock preparations. The Kunkel pharmacy also takes full responsibility for purchase, storage, and maintenance of those pharmaceutical and biological products regularly stocked in the hospital pharmacy. Experience over the past five years indicates that a working agreement between a small hospital and a local pharmacy can be a sound business arrangement. Through such cooperative efforts, benefits usually otherwise unobtainable accrue to the patient, the hospital, and to the retail pharmacy.

The Patient

Nearly every service provided by even a small hospital involves trained professional personnel, be they medical internist, surgeon, radiologist, laboratory technician, nurse, dietitian, or medical record librarian. If there is a practical means of including a pharmacist in this list, it follows, that it should be considered. Failure to have the services of a properly trained and experienced pharmacist lowers the quality of the hospital's services and is not in the best interest of the patient. Incompetent pharmaceutical service can cancel other treatment and involves risks of actual damage through error. The best possible patient care demands that a pharmacist provide the drug needs, and if no other method is possible, affiliation with a local pharmacy is a logical step.

The first advantage in this arrangement is having someone well-acquainted with the new pharmaceutical developments and products to depend on for those calls which frequently occur at the most inconvenient times. The local pharmacist may not stock every new product entering the drug field, but he has contacts and the means of obtaining these items in the shortest possible time.

The interval between an order and receipt of the drug can be important to the patient. Efficient and prompt pharmaceutical service will contribute to improved patient care. The availability of drugs will determine the scope of the physician's skill. He will have greater latitude for his knowledge of therapeutics if it is possible to apply the necessary drugs to the case at hand, rather than try to fit the patient's condition to the drug-room inventory.

Hospital drug stocks are determined by the preference of its staff, which may be relatively small in comparison with the number of physicians in the community at large. The local pharmacy, however, may expect to receive prescriptions from any local physician and, of necessity, stocks a larger and more varied inventory. Cooperation between a small hospital and the local pharmacy makes this combined supply immediately available to the patient. Under our agreement the pharmacy provides drug products at the usual wholesale price. There are no extra delivery charges or middleman profits to add to the patient's expense. Each of these features is directed toward providing the patient with the best possible service at the most reasonable cost, and is the basic and most important reason for an affiliation of this kind.

The Hospital

The first benefit the hospital receives is securing the amount of pharmaceutical service it requires at a price it can afford. In addition, it is relieved of the various problems natural to a hospital pharmacy department. Matters of personnel, purchasing, pricing, inventory control, etc., are decided by the pharmacist and put into effect with the approval of the administrator. In our case, basic policy for the pharmacy department was established during the initial test period and included centering responsibility on the pharmacist for efficient and profitable operation.

A secondary and more tangible benefit is found in the improved financial result in this department as evidenced in a recent six-month period. During the first half of 1954 Our Lady of Mercy Hospital treated about 3,000 patients of which 2,000 were

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FRANK E. KUNKEL is with the Kunkel Apothecary and in charge of Pharmacy Services at Our Lady of Mercy Hospital, Cincinnati, Ohio.

Presented at the Institute for Administrators and Hospital Pharmacists sponsored by the Ohio Hospital Association and the Ohio Society of Hospital Pharmacists in Columbus, November 1954.

admitted to beds. Patients' accounts for this period show drug charges of $34,000. Drug purchases during the same period were $16,000. The overhead includes an inventory of less than $2,000, a 12 by 15-foot room with its small prorated fixed expense for light, heat, etc., and less than $1,000 for salaries. From these figures it may be seen that the net return from the pharmacy department is quite satisfactory.

Since many patients have some form of hospital insurance our pricing policy is based on their allowance of approximate cost plus 50 percent for drugs. Additional savings and profits have been realized by applying, where possible, the same good business principles used in large hospitals, or retail pharmacies. Cooperation from the medical staff allows us to standardize on many pharmaceutical products, avoid duplication in inventory, and purchase in more profitable quantities.

Orders at the hospital for unstocked pharmaceuticals can generally be filled at the retail pharmacy for just the required amount so we avoid tying up part of the profit in increased inventory and dead stock. This feature works both ways and the hospital frequently provides a similar service to the pharmacy.

One of our pharmacists is on duty at the hospital each afternoon for whatever length of time is necessary as determined by the pharmaceutical requirements of the patients. At all other times, emergency calls are made to the local pharmacy or my home, and then transferred to whichever pharmacist is on call. Many of these calls are for information, but when a new or strange product is involved it becomes the pharmacist's responsibility to secure it. The advantage of this arrangement is that a floor supervisor or department head may make such an emergency call and then relax secure in the knowledge that something will be done about it at once.

With a single responsible person in charge of the department it has been a simple matter to establish systems for handling narcotics, barbiturates, alcohol, and other drugs subject to state or federal regulation. Nurses and physicians have been more cooperative when approached through the pharmacist regarding these products. Set policies on outpatient drug charges, employee purchases, and ordinary drugs for floor use have improved efficiency and eliminated waste. Reduced to their simplest terms, all these features reflect a professional service being provided by a trained professional person.

The Pharmacist

The pharmacist entering this kind of agreement should be willing to accept a portion of his compensation in intangible benefits. The opportunity to promote his profession, assist an institution vital to the community, and help raise the standards of medical practice is hard to evaluate in dollars and cents.

Our arrangement provides that the hospital pay, on a flexible basis, for the time the pharmacist spends on the premises. Experience has shown that three hours is the average time required and that period is used as a standard for payment. However, if more or less time is actually spent, there is no attempt to adjust the pay scale. The pharmacist is free to leave when he finishes his work but also is willing to remain overtime or come back in the evening when it is required.

Other practical considerations include combining hospital and retail pharmacy drug purchases so that both enjoy the advantages of superior buying power and the better discounts from bulk purchases. Some pharmaceutical manufacturers offer a small handling allowance to the pharmacist supplying a hospital. This gives him some small additional income at no expense to the institution.

In some few instances the pharmacy receives requests for hospital items not generally stocked. Our cooperative agreement makes these available and allows us to provide better pharmaceutical service to our customers.

One of the most stimulating results of this association has been the sharpening of interest in the professional side of pharmacy. Joining the state and national societies of hospital pharmacists, attending their institutes, and reading their periodicals has developed for me an entirely new concept of my vocation. Practicing pharmacy in a truly professional atmosphere and meeting the physician on a basis impossible in a retail pharmacy only adds to the pleasure.

Conclusion

It wouldn't be realistic to suppose that every small hospital could utilize the local pharmacy in the manner just outlined. If there is anything unique in our arrangement it may be that all the factors necessary to a successful cooperation are present. Personality of the administrators, convenience of location, necessity created by community requirements, are all equally important in setting up this service. There is a great amount of mutual trust and confidence inherent in such an affiliation and a willingness to give and take during the original trial period. If there is any value to be drawn from our experience it is simply that where the need exists, utilization of the local pharmacy by the small hospital provides benefits for patient, hospital, and pharmacist otherwise usually unobtainable.

Photograph taken in office of Mr. Joseph Schaller, E. R. Squibb & Sons, S. A. Plant, Sao Paulo, Brazil. LEFT TO RIGHT: *Dr. Leonard J. Piccoli, Dr. Don E. Francke, Dr. Paul Wilcox, Lt. Col. H. D. Roth, Mrs. Frank Frisch, Dean Noel Ferguson, Mr. Joseph Lucas, Mr. Frank O. Frisch, Mr. John B. Heinz, Mr. Joseph Schaller, and Mrs. Jack B. Heinz.*

PAN-AMERICAN CONGRESS
OF PHARMACY AND BIOCHEMISTRY

PHARMACISTS FROM SIXTEEN NATIONS met in Sao Paulo, Brazil, December 1 to 8 to participate in the Third Pan-American Congress of Pharmacy and Biochemistry. One of the actions taken by the Congress which is of major interest to American pharmacists was the decision to hold the next Congress in the United States. Thus, the Fourth Pan-American Congress of Pharmacy will be held here in 1957. The exact date and site of the Congress remain to be decided.

The American delegation in Sao Paulo was headed by Mr. Jack B. Heinz, Vice President of the American Pharmaceutical Association. Dr. Don E. Francke served as Secretary of the delegation. Other members included in the group representing the U.S. were: Dr. Noel M. Ferguson, Dean of the College of Pharmacy, University of Houston, Houston, Tex.; Mr. Frank Frisch of San Francisco and Mr. Joseph S. Lucas of New Orleans, both of whom are practicing pharmacists; Dr. Leonard J. Piccoli of Fordham University and E. R. Squibb, New York City; Mrs. Anna C. Richards of the New Jersey Society of Hospital Pharmacists; Lt. Col. H. Dale Roth of the Medical Service Corps, U. S. Army, Washington, D. C.; and Dr. Paul Wilcox, Assistant Director of Research, Sharp and Dohme, Philadelphia.

Speaking for the A.Ph.A., Vice President Jack B. Heinz presented one of the principal addresses at the Plenary Session. His paper, "Pharmacy and the Drug Industry," was prepared in collaboration with Dr. Robert P. Fischelis, Secretary of the American Pharmaceutical Association.

(Continued on Page 88)

LEFT: *A.Ph.A. Vice President Jack B. Heinz speaks at Plenary Session.* RIGHT: *Commander Peter A. Collins-Cona, Mrs. Collins-Cona, Mr. Joseph Lucas, Mrs. Anna Cona Richards, Dean Noel Ferguson, Mrs. Jack B. Heinz, Mr. Jack B. Heinz, Mrs. Frank Frisch, Mr. Frank Frisch, and Dr. Don E. Francke.*

Second Supplement to

Comprehensive BIBLIOGRAPHY on Hospital Pharmacy

including publications to January 1955

compiled by

William Heller and Gloria Niemeyer

THE BULLETIN *American Society of Hospital Pharmacists*
VOL 12 NO 1 *January-February 1955*

This Second Supplement to the *Comprehensive Bibliography on Hospital Pharmacy* covers the two succeeding years, 1953 and 1954. Previous lists of references to the literature published in hospital pharmacy were included in the Bibliography appearing in the January-February (1951) issue of THE BULLETIN and the First Supplement published in the January-February (1953) issue. Both of these have been made available in reprint form and have served a worthwhile purpose to practicing hospital pharmacists.

This work has again been carried forward in accordance with action taken at the 1952 Annual Meeting of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS when the following resolution was passed:

> *Whereas* the extensive *Bibliography* published in THE BULLETIN, Volume 8, Number 1, has been of inestimable value to the practicing hospital pharamcist, therefore
>
> *Be it resolved* that the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS provide for the issuance of an annual supplement to the *Comprehensive Bibliography on Hospital Pharmacy.*

Preface to Second Supplement

To date, it has seemed feasible to publish a Supplement bi-annually rather than every year. It is anticipated that a cumulative list can be made available if and when advisable.

Again in the 1955 Supplement, we have attempted to cover an even greater number of journals. In general, the same plan is followed in this Second Supplement as in the 1951 and 1953 lists. In a few instances, new subject headings have been added in order that material may be more readily located under the Principal Subject Headings. Of particular interest is the addition of "Radioisotopes," as a subject heading. It should be noted that articles may be listed under more than one subject. An author index is also included.

Apparent from this addition to the reference material for hospital pharmacists, is the increasing volume of literature being published in this specialty. Again, no attempt has been made to select or evaluate articles included in the literature. With the exception of routine news and notes on local organizations, all references of interest to hospital pharmacists have been included in this Supplement.

William Heller, who contributed much to the First Supplement published in 1953, is again responsible for compiling the major part of this Second Supplement. A former intern in hospital pharmacy at The Johns Hopkins Hospital in Baltimore, Maryland, Dr. Heller has recently completed his work for a Doctor of Philosophy Degree at the University of Maryland School of Pharmacy. He is presently located at the University of Arkansas School of Pharmacy where he will be in charge of the Pharmacy Department at the Hospital, as well as serving on the faculty at the School. Again, special credit is due Dr. Heller for his devoting many hours to this project.

Washington, D. C.
January, 1955

Gloria Niemeyer

Preface to 1951 Bibliography

The following bibliography is an attempt to bring together in convenient form references to the literature in hospital pharmacy. We have endeavored to take into account the special needs of hospital pharmacists and teachers as well as all those concerned with hospital pharmacy practice. It should be noted that this covers only hospital pharmacy; articles on pharmacology and therapeutics have not been included unless of particular interest to hospital pharmacists.

Principal subject headings have been chosen and arranged in a manner most convenient for use. No attempt has been made to include an index, but headings have been chosen to cover broad subjects. Occasional duplications have been made in order that one using a list of references on a particular subject will have the advantage of finding each subject and each entry self-contained without referring elsewhere. Subject headings are arranged alphabetically with references arranged chronologically, the most recent articles appearing first under each heading. Articles appearing within each year are separated by a line. The names in the author index, arranged alphabetically without distinction as to sole or joint authorship, are followed by numbers which refer to the reference number of each article written by a particular author. Page numbers are not referred to in the author index.

In most cases the outstanding pharmaceutical and hospital publications have been covered for the past two decades. It was felt generally that articles published prior to this date would have limited use. Consequently, only those articles appearing prior to 1930 which might have unusual interest or historical value have been included. In most cases foreign articles have not been included since these are not readily accessible. No attempt has been made to evaluate the articles included in the bibliography.

For the benefit of those not having complete library facilities, the Army Medical Library makes available single photoprint copies of separate articles from periodicals at a charge of fifty cents for each five consecutive pages or fraction thereof from any one article. The Library will also lend without charge, single microfilm copies of original articles published in medical periodicals not available locally. Such loan requests should be routed through libraries, Governmental Agencies, or Research Institutions. The microfilm, being a part of the duplicate collection of the Library, may be used for ninety days and should be returned to the Library at the end of the loan period. Single microfilm copies will also be sold at a rate of fifty cents for each fifty pages or fraction thereof from a single article to those desiring to retain them. Requests must be made on Form AML-48 available from the Army Medical Library, 7th and Independence Ave., S. W., Washington 25, D. C.

It is hardly possible to make such a work complete; however, every effort has been made to prepare a bibliography which will serve as a guide to the existing literature in the field. Undoubtedly, much has been included which might have been omitted. Notification of details of errors and omissions will be appreciated. To keep an up-to-date bibliography on hospital pharmacy, it is hoped that an annual supplement may be published in a convenient form.

Washington, D. C.
December, 1950

Gloria Niemeyer

Principal Journals Cited in Bibliography

with ABBREVIATIONS

American Journal of Pharmaceutical Education—
Am. J. Pharm. Ed.

American Journal of Pharmacy—
Am. J. Pharm.

American Professional Pharmacist—
Am. Profess. Pharmacist

The Bulletin of the American Society of Hospital Pharmacists—
Bull. Am. Soc. Hosp. Pharm.

Bulletin De La Federation Internationale Pharmaceutique—
Bull. F. I. P.

Bulletin of the National Association of Boards of Pharmacy—
N.A.B.P. Bull.

Hospital Management—
Hosp. Management

The Hospital Pharmacist (Canada)—
Hosp. Pharm.

Hospital Progress—
Hosp. Progress

Hospitals—
Hospitals

The Journal of the American Medical Association—
J. Am. Med. Assoc.

Journal of the American Pharmaceutical Association,
Practical Pharmacy Edition—
J. Am. Pharm. Assoc., Pract. Pharm. Ed.

The Modern Hospital—
Modern Hosp.

The Pharmaceutical Journal (London)—
Pharm. J.

Southern Hospitals—
South. Hosp.

NOTE: Arrangement of individual references is according to the following style:

Author: Title of Article, Name of Periodical (in italics), volume number: page number (month) year.

Numbers of the periodicals have not been included since the month is always listed. Journals which are referred to most frequently are listed above, along with the abbreviations as used throughout the bibliography.

Subject Headings

Second Supplement to Bibliography on Hospital Pharmacy

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AUTHOR INDEX

The effects of antihistamines and ACTH on temperature rise due to PYROGEN REACTION IN RABBITS

by GERALD M. STAHL *and* W. HOWARD HASSLER

THE POSSIBILITY OF A PYROGEN REACTION is of the utmost concern to a hospital pharmacist who is responsible for the preparation of intravenous solutions. Experiments were performed by Ferris *et al.*[1] to determine whether pyrogenic reactions resulting from blood transfusions could be minimized or prevented by the prophylactic use of antihistamines. Tripelennamine (Pyribenzamine) was directly added to the blood before transfusions. It was observed that 7.14 percent of incidence of transfusion reactions occurred in the control group, while 0.32 percent reactions were reported in patients who received the transfusions with Pyribenzamine.

When testing for the pyrogenic content of ACTH preparations, it was observed that ACTH lowered the normal temperature in rabbits.[2] It has been shown[3] that the administration of ACTH prevents a febrile response to pyrogens obtained from typhoid vaccine. Studies using ACTH and killed typhoid bacilli have indicated that the administration of ACTH after or during the injection of pyrogens prevented or delayed the rise in temperature.[4] As a result of the above observations, experiments were conducted using four drugs which might possibly prevent pyrogen reactions. Diphenhydramine (Benadryl) Hydrochloride U.S.P., tripelennamine (Pyribenzamine) hydrochloride U.S. P., chlorprophenpyridamine (Chlor-Trimeton) maleate N.N.R., and ACTH were chosen. In our experiments, no specific pyrogens were used, but the solutions were prepared in such a manner as might be expected to provide contamination with pyrogenic material in a hospital pharmacy.

Method. Freshly distilled water was made isotonic with sodium chloride, placed in beakers and exposed to the atmosphere. After a period of one week, immediatly prior to the tests, the water was filtered through a Berkefeld candle and filled into 250 ml. vials which had been autoclaved. The pyrogenicity of the water was tested in each experiment by means of three control animals which were used simultaneously with the test animals. The standard U.S.P. test for the detection of pyrogens in solution was used throughout our experiment.[5]

The experiments were run at one week intervals. Twenty female rabbits were at our disposal at all times and were used alternately. No tolerance to the pyrogenic dose could be observed in the animals at any time.

Six rabbits were injected intravenously in each experiment. Three animals received the pyrogenic solution only, while the other three rabbits were injected with the pyrogenic solution and one of the drugs to be tested, Diphenhydramine Hydrochloride,[a] Tripelennamine Hydrochloride,[b] Chlorprophenpyridamine Maleate,[c] or ACTH.[d] Diphenhydramine hydrochloride and tripelennamine hydrochloride were given intravenously immediately following the injection of the pyrogen solution, as well as simultaneously. The dosage of both drugs was 5 mg./Kg. Chlorprophenpyridamine Maleate and ACTH were only given simultaneously with the pyrogen solution. The dosage of chlorprophenpyridamine maleate was 0.4 mg./Kg. and that of ACTH was 1 mcg./Kg.

Four rectal temperature recordings were made. The first one was taken immediately prior to the beginning of the experiment. The other three readings were made at hourly intervals, beginning one hour after the completion of the injections.

Discussion

Although it has been stated[1] that the pyrogenic reaction is a response to histamine liberation, the data presented in this thesis do not substantiate this assumption. The explanation for these different results probably lies in the fact that, in the transfusion experiments, the presence of pyrogens was not clearly established, and the reactions could have been due to foreign proteins. Since the three antihistamines, diphenhydramine, tripelennamine, and chlorprophenpyridamine failed to prevent temperature rise following the injection of a pyrogenic material, we may conclude that the pyrogenic reaction of temperature elevation involves more than a mere release of histamine. It is doubtful if the release of histamine is increased during pyrogenic fever.

The lowered temperature in fevered animals treated with diphenhydramine as compared with tripelennamine and chlorprophenpyridamine may

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Abstracted from a thesis submitted by GERALD M. STAHL to the University of Tennessee, School of Pharmacy, in partial fulfillment of the requirements for the degree of Master of Science in Hospital Pharmacy.

W. HOWARD HASSLER is Assistant Professor of Pharmacy, University of Tennessee, Memphis, and Pharmacist at the West Tennessee Tuberculosis Hospital, Memphis, Tenn.

[a]Bought on open market as Benadryl Hydrochloride 10 mg./ml. Parke, Davis and Co.

[b]Bought on open market as Pyribenzamine Hydrochloride 25 mg./ml. Ciba.

[c]Bought on open market as Chlor-Trimeton 10 mg./ml. Schering Corp. Also named chlorpheniramine.

[d]Bought on open market at ACTH 40 units, Parke, Davis and Co.

be due to a greater sedative effect of diphenhydramine, and partly, therefore, to a less marked response of the animals to external stimuli. Diphenhydramine also has a slight antispasmodic effect and the animals were probably in a much more relaxed state.

The results of ACTH on the temperature rise in the animals were unexpected. The previously reported observations ([2,3,4]) were not substantiated by the observation reported in this thesis. This may be due to the fact that no standards in regard to the quantity and quality of the pyrogenic material were set up in our experiments, while purified bacterial pyrogens were studied and used in the other tests.

Summary

1. Diphenhydramine hydrochloride had the most favorable effect of the drugs which were studied. The temperature rise was greatly reduced, although it did not prevent a positive reaction according to official standards in the U.S.P.[5] A dose of 7.5 mg./Kg. of diphenhydramine hydrochloride instead of 5 mg/Kg. did not further alter the results. Since toxic effects were noted at this dosage, the dose was not increased beyond 7.5 mg./Kg.

2. When tripelennamine hydrochloride was given with the pyrogen solution, as well as immediately following it, the temperature rise was above 0.6°C. The temperature increase was greater than that of the control animals, when tripelennamine was injected immediately following the pyrogenic solution.

3. Chlorprophenpyridamine maleate did not appreciably change the course of the pyrogen reaction.

4. ACTH delayed the onset of the reaction but the temperature reached a much higher level than that of the control animals at the end of the three hour period.

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TEMPERATURE INCREASE IN ° C.

	AFTER 1 HR.	AFTER 2 HRS.	AFTER 3 HRS.	METHOD OF INJECTION
Control group (average temperature increase of *all* control groups)	1.2	1.2	1.4	
Diphenhydramine Hydrochloride 5 mg./Kg.	0.30	0.60	0.87	Injected intravenously immediately following the pyrogen solution
	0.40	0.63	0.00	Injected intravenously simultaneous with the pyrogen solution
Tripelennamine Hydrochloride 5 mg./Kg.	1.47	1.50	2.00	Injected intravenously immediately following the pyrogen solution
	0.83	1.03	1.10	Injected intravenously simultaneously with the pyrogen solution
Chlorprophenpyridamine Maleate 0.4 mg./Kg.	0.80	1.03	1.27	Injected intravenously simultaneously with the pyrogen solution
ACTH 1 mcg./Kg.	0.63	1.90	2.20	Injected intravenously simultaneously with the pyrogen solution

vine (Ergotrate) maleate intravenously in the De- signed by the intern when digitalis or quinidine

SUGGESTED RULES FOR MEDICATION ORDERS

In addition to the selection and evaluation of drugs used in the hospital, the Pharmacy and Therapeutics Committee has numerous other responsibilities. One of these is to develop a set of rules for the administration of medication. The purpose of such rules, of course, is to bring order and system into a hospital procedure with which numerous people are concerned. And even more important, rules for the administration of medication are formulated to safeguard the patient by esablishing procedures and practices which avoid misunderstanding and confusion.

Listed here are the rules for the administration of medication developed by the Pharmacy and Therapeutics Committee, and approved by the medical staff, of a representative teaching hospital. They are not presented as an ideal set of rules; but, rather, as suggestions which may be improved by modification.

Order Writing

1. All medication administered to or taken by a patient while he is in the University Hospital should be ordered in the order book and charted so that it becomes a part of the patient's record.

2. All physicians' orders must be written legibly on the order sheets by the assistant resident or the intern. Each order must be signed by its author.

3. The metric system must be used in writing all orders for medication, except for dosage commonly expressed in drops.

4. All orders shall be dated and the time of their writing noted.

5. Write "daily" or "q.d." after drugs to be given daily. If omitted, the order is valid for 24 hours only, irrespective of the drug orders. Exceptions are orders for activity, fluids, and diet.

6. Every medication order written by a physician must designate the route of administration of that medication.

7. At his discretion a physician ordering a drug which he believes to be particularly hazardous should write "Give with caution and with the following special observations—". The special observations, such as blood pressure readings, pulse rate, etc., should be incorporated in the written order. This designation shall be interpreted to mean that the dosage should be checked most carefully and the patient observed closely as directed after the medication is administered.

8. To insure accurate dosage, state the percentage or dilution of solutions when a choice exists, e.g.:

   a. Epinephrine Hydrochloride (1:1,000) 0.3 ml. (H) stat.
   b. Elixir Ammonium Chloride (25 percent), 4.0 ml. q. 4 h. daily.

9. Prescriptions for sterile, specially compounded solutions should indicate whether they are for injection or for external use.

10. Nurses may order refills for all prescription medication, except those containing narcotics, during the patient's hospitalization.

Refill medication may be ordered by copying the name and strength of the medication and the prescription number, together with the patient's name on a prescription blank.

11. Upon the direction of the physician, nurses may initiate an original ordered prescription only for those medications for which a printed prescription blank is supplied.

12. The following automatically cancel all previous orders and new orders must be written as for a new patient:

   a. Transfer of a patient to another service.
   b. Transfer of a patient from one floor to another, unless the patient retains the same medical staff.
   c. When the patient goes to Operating Room for an operation.

13. Orders for irrigations and wet dressings should give the type and strength of solution to be used and the exact locations to which it shall be applied.

14. Narcotic orders are not standing orders and require renewal every 48 hours.

15. Except when a drug is administered personally by a member of the medical staff, information concerning all drugs taken by or given to patients while in the Hospital must be available to members of the Nursing Staff. The administration of drugs by any route by members of the Nursing Staff is prohibited until such time as adequate information concerning the actions, uses, dosage, toxicity, and precautions of such drugs is available on the individual nursing units in the form approved by the Pharmacy and Therapeutics Committee.

Injectible Medication

16. When intravenous medication is required it must be given by the physician. Exceptions to this rule must be specifically approved by the Pharmacy and Therapeutics Committee. Present exceptions include (1) the administration of ergono-

vine (Ergotrate) maleate intravenously in the Delivery Room and (2) the administration of intravenous infusions in the Recovery Room.

It is the physician's responsibility to decide what medications, and how large a quantity, can be given safely intramuscularly by nurses. The maximum dose to be given intramuscularly in any one injection site is 5 ml. The physician is to start all intravenous and subcutaneous infusions, but these may be terminated by the nurse. Any drug the physician administers by any route should be recorded (as given) on the patient's order sheet so that the medication will be charted. Record the weights, or units, of the drug given and not the ml. of solution, e.g.:

a. Aminophylline, 0.5 Gm., given I.V. at 8:00 A.M.

b. Digitoxin, 0.2 mg., given I.V. at 8:00 A.M.

17. Because of the dangers inherent in the injection of foreign protein, the administration of antitoxins by nurses is prohibited.

Interpretation of Abbreviations

18. The abbreviation "p.r.n." means "when required". A p.r.n. order must contain the minimum time between dosage and the symptoms for which the drug is given, e.g.:

a. Morphine Sulfate, 10 mg. (H) q. 3 hr., p.r.n. for pain.

19. The abbreviation "s.o.s" means "if necessary" and, when included in an order, the time of administration must be designated, e.g.:

a. Sodium Pentobarbital, 0.1 Gm. h.s. and s.o.s. in one hour for insomnia daily. (Drug is given daily at bedtime and again in one hour if patient is still sleepless.)

20. A stat. order does not automatically discontinue a p.r.n. order but merely alters the time of subsequent administration.

Special Medication Orders

21. Bishydroxycoumarin (Dicumarol) and Related Drugs:

a. Anticoagulant drugs are potentially hazardous drugs and orders for their administration should be written only after the prothrombin concentration is determined for that day.

b. All new patients have prothrombin determinations performed on whole, undiluted plasma.

c. Blood samples which are stored in the refrigerator may fail to reveal consistent prothrombin concentrations.

d. All reports will reach the hospital wards on the day that the blood plasma is drawn.

22. Digitalis and Quinidine. The top of the digitalis and quinidine chart must be filled in and signed by the intern when digitalis or quinidine is given. The notation should state whether or not digitalis or quinidine has been taken previously, the dosage, the last time the drug was taken, and the plan for future use of the drug. The nurse records the doses given orally. The nurse should report a radical pulse under 60 to the physician when the patient is taking digitalis-like drugs.

23. Insulin. Keep a separate order sheet for insulin orders on each diabetic patient. An insulin order may not be written more than 24 hours in advance. It must contain:

a. The number of units to be given.

b. The type of insulin (N.P.H., protamine zinc, regular, Lente).

c. The unitage (U-20, U-40, U-80).

d. The hour and date to be given.

For example: 6/28/54 7:00 P.M. Give 65 units N.P.H. (U-80) at 7:30 A.M. 6/29/54. Dr. Jones.

Medication for Discharge Patients

24. An order discharging the patient must be written on the order sheet. This order should be written four hours in advance of discharge, and preferably 24 hours prior to discharge time, in order that proper notification may be given to the many hospital departments which will be involved, and that all patient materials will be available before the patient leaves the hospital. By writing the discharge orders within the time stated, much confusion at the last minute is eliminated. The discharge order should include a list of the prescriptions being sent with the patient, and the time and reason for the patient's return.

25. The physician should write discharge prescriptions before the patient leaves the nursing unit. They are also to be recorded in the order to discharge the patient. These prescriptions may be given to the patient to be filled at his local pharmacy or, if more convenient, may be filled in the hospital before the patient leaves. Discharge prescriptions should be so identified (by checking in the designated space). Unused inpatient prescriptions may not be used as discharge prescriptions, unless relabeled by the Pharmacy or the attending physician.

26. Prescriptions for discharge patients should list the ingredients and quantities of the individual components of the medication when the discharge prescription is to be filled outside of the hospital. Some prescriptions are peculiar to this hospital and patients will not be able to get the prescription filled unless the ingredients are listed.

For example, a prescription for Bellarbital Elixir, which is not well known outside of the hospital, should be written:

Belladonna Tincture,	20 ml.
Phenobarbital Elixir, to make	120 ml.

27. If an error, which may be even potentially harmful, occurs in the administration or application of medication while the patient is in the hospital, the Associate Director's office should be informed immediately. The matter is not to be discussed with the patient. A printed form, Accident Report for Non-Employees, must be completed in triplicate at the time of the injury and relayed to the Admitting Department.

MIAMI BEACH

LEFT: *Famous hotel strip along Miami Beach.*
BELOW: *Miami Beach's palm-dotted sands.*

a·s·h·p meets May 1—7

MAY 1 will find hospital pharmacists arriving in Miami Beach for the SOCIETY's twelfth Annual Meeting. Again this year meetings will be held in conjunction with the Convention of the American Pharmaceutical Association and affiliated organizations. The ASHP sessions will officially open on Sunday with the House of Delegates meeting at 2 P.M. at the headquarters hotel. All meetings are scheduled at the Hotel Fountainbleau, Miami Beach's newest hotel.

House of Delegates

At the meeting of the House of Delegates, representatives of the local affiliated chapters, the members of the Executive Committee, and the Chairmen of the Society's Special Committees, all serving as members of the House, will consider policy matters to be brought before the General Sessions on Monday and Tuesday. President-Elect Claude Busick will present his address outlining projected plans for the new year and announce committee appointments. Additional business to be handled in the House of Delegates includes election of the Secretary on the recommendation of the Executive Committee. Although only members of the House vote, all SOCIETY members may attend the meeting of the House of Delegates. Secretaries of affiliated chapters have received notice and official credential forms for the House of Delegates. Chapters are urged to send delegates as well as other representatives to participate in the deliberations at the Annual Meeting. Reports and resolutions should be presented in writing and, when possible, submitted to the Secretary prior to May 1.

The House of Delegates, as well as the General Session, will be presided over by President George F. Archambault.

Program

In addition to the regular business sessions, Mr. Paul Parker, Chairman of the ASHP Committee on Program and Public Relations, is arranging an outstanding program. Highlighting the discussions will be a talk on education and training in hospital pharmacy and the need for approval of internship programs. Other papers will cover current trends in the field with emphasis on new developments.

Among the subjects being considered for discussion at the Annual Meeting are the following: Physical Layout of the Pharmacy Department, Drug Charges, Purchase of Stock, Policies, Narcotic and Barbiturate Control, Basic Principles of Organization, Floor Service, Extra Pharmacy Services, Formulary, Pharmacy and Therapeutics Committee in the Small Hospital, and Civil Defense and the Role of the Pharmacist in the Mobilization of Emergency Hospitals.

In view of the fact that the date for the Annual Meeting is May 1, it will not be possible to include the complete program in THE BULLETIN prior to the Convention. However, further details of the program and plans for entertainment will be sent to all members of the SOCIETY.

Business Sessions

The SOCIETY's annual business meetings will be held during the sessions on Monday and Tuesday also. At this time officers and committee chairmen will report on activities during the year. Of particular interest will be the report of the Committee on Minimum Standards regarding approval of the Proposed Manual for Hospital Pharmacy Internships, and the Report of the Advisory Committee on A National Hospital Formulary Service. All reports and complete proceedings of the meetings will appear in the July-August (1955) issue of THE BULLETIN.

Mt. Sinai Hospital, Miami Beach

Convention Information

A.Ph.A. Convention—
Hotel Fountainbleau, Miami Beach, May 1-7
ASHP House of Delegates—
Sunday, 2 P.M.
ASHP Informal Cabana Party—
Sunday Night
ASHP General Sessions—
Monday and Tuesday
ASHP "Tropical Night"
Monday Night
ASHP Breakfast
Tuesday, 8 A.M.
A.Ph.A. Section Meetings—
Wednesday, Thursday and Friday
A.Ph.A. General Sessions—
Wednesday, Thursday and Friday

Entertainment

Plans for entertainment are being worked out by the Local Committee headed by Mrs. Anna D. Thiel, Chief Pharmacist at Jackson Memorial Hospital, Miami. Mrs. Thiel is also a member of the Executive Committee and is serving as coordinator of the plans for the program and local arrangements. Others actively participating on the Local Committee are Lee Neidlinger, USPHS Outpatient Clinic, Miami; Carl Dell, Jackson Memorial Hospital, Miami; Mary Wernersbach, Mt. Sinai Hospital, Miami; and Ralph DeYoung, Victoria Hospital, Miami.

Tentative plans include a Cabana Party on Sunday evening on the Ocean front. Entertainment will include a water show with an opportunity for water sports. On Monday night, the local committee is arranging a "Tropical Night" for SOCIETY members at the Coral Gables Country Club. Following dinner under the coconut palms and special ceremonies honoring the President and President-Elect, the evening will be open for dancing.

Tuesday morning the hospital pharmacists will hold the traditional breakfast at the Fountainbleau.

In order to expedite plans, hospital pharmacists are asked to make reservations for the special events through Mrs. Anna Thiel and forms will be sent to those who plan to attend the Annual Meeting.

A.Ph.A. Sessions

Hospital pharmacists will also participate in the A.Ph.A. meetings throughout the week. The General Sessions, the meetings of the House of Delegates, and the various Sections will meet on Wednesday, Thursday, and Friday.

Papers of particular interest to those practicing in hospitals will also be presented at the sessions of the A.Ph.A. Section on Practical Pharmacy. It is anticipated that one afternoon will be devoted to a subject of current interest with pharmacists from the various specialties and physicians participating.

Other sections being held during the week include the Scientific Section, the Section on Education and Legislation, the Section on Pharmaceutical Economics, and the Section on Historical Pharmacy. Further details regarding the program will appear in the Practical Pharmacy Edition of the *Journal of the American Pharmaceutical Association.*

Hotel reservations at convention rates may be made through the Convention Housing Bureau. All members will receive a form listing complete information as to cost and hotel location.

Jackson Memorial Hospital, Miami

therapeutic TRENDS

edited by LEO F. GODLEY

Amicetin In Leukemia

Amicetin is an antibiotic isolated from *Streptomyces vinaceusdrappus*. At Sloan-Kettering Institute, Burchenal *et al* injected amicetin intraperitoneally into mice with leukemia. This was reported in *Proc. Soc. Exp. Biol. Med. 86*:891 (Aug.-Sept.) 1954. The mice with a certain type (line 82) of leukemia lived considerably longer than the controls that received no treatment. On this type of leukemia, amicetin was more effective than amethopterin, mercaptopurine, or azaserine; however, other agents were more effective against some other types of the disease.

Amicetin was also effective orally when the dose was increased by five times. The amicetin in this study was supplied by Upjohn and Lilly.

Nuvarone In Convulsive Disorders

Nuvarone is a hydantoinate, 3-methyl 5 phenylhydantoin. Peterman, reporting in *Pediatrics 14*: 364 (Oct.) 1954, conducted a study with Nuvarone on 72 pediatric patients with various types of convulsive disorders. They were treated from six months to six years.

There were no serious side reactions observed. Two patients developed leukopenia; one elicited an allergic reaction. Blood and urine analyses were conducted at regular intervals during therapy. Nuvarone was given in conjunction with phenobarbital or Gemonil, but should not be used with other "hydantoin compounds, Phenurone, or diones," (the reason is not given).

Nuvarone for this study was supplied by Abbott Laboratories.

Atabrine In Trichomonas Of Prostate

Hammer and associates of Kalamazoo reported in *J. Mich. State Med. Soc. 53*:888 (Aug.) 1954, that they had found Atabrine, the antimalarial drug, the treatment of choice in trichomonas infestation of the prostate.

Their reasons for choosing Atabrine were: (1) its established use on Giardia, also a flagellate, found in the duodenum, and (2) there were no cases of male trichomonad infestations reported from the South Pacific during World War II, while many cases were reported from other areas. Atabrine was given in the South Pacific as a routine preventative for malaria.

These clinicians successfully eliminated trichomonads from the prostate of four men using 0.2 Gm. of Atabrine four times a day for three weeks. Tests were made for the organism at the end of each week of therapy.

It appears that trichomonas infestation in the male is more common than is ordinarily suspected; and it is probable that refractive cases in the female may be related to infestation in the male partner.

Silicone Rubber Tubing In Surgery

Dimant of the Royal Infirmary in Manchester, England reports on the use of silicone rubber tubing that is to be left *in situ* after surgical procedure. Polyethylene and ordinary rubber tubes have been used in the past but in many cases have not been entirely satisfactory due to their physical properties and the effects they produced on contact tissues.

This report appeared in *Lancet* 2:533 (Sept. 11) 1954. It was noted that silicone rubber tubing could be drawn to a bore and wall thickness required by any procedure; and that after as many as 40 autoclave sterilizations, there were no obvious changes in physical characteristics. The surface of silicone rubber is water repellent and it is thought that toxic materials would not easily be dissolved from the tubing. In contrast to ordinary rubber and plastic tubing, in this investigator's experience, silicone rubber tubing has been entirely satisfactory.

Lactic Acid In Osteoarthritis

Waugh, in England, injected lactic acid into the hip joint capsule of patients with osteoarthritis of that joint. His report appeared in *Lancet* 2:39 (July 3) 1954. An average of 12 ml. of lactic acid was injected fortnightly. A small needle was

used and the medication was injected under pressure as it was thought that the pressure of injection served to break adhesions in the joint, which adhesions might be responsible for the pain encountered in this disease process.

Of the 76 patients treated, 47 were satisfied with the results, 9 were doubtful, and 20 were dissatisfied. Waugh divided the hips into 3 categories—A, B, and C—depending on the involvement and deformity present. In his opinion, based on this initial experiment, group A hips would be most likely to respond favorably to this therapy.

Alyt—A Corpus Luteum Stimulant

Alyt is an alcoholic extract of the seeds of *Agnus cactus*. This study by Probst and Roth was done in Germany and summarized in *J. Am. Med. Assoc. 156*:1542 (Dec. 18) 1954. Alyt appears to stimulate the corpus luteum formation in the ovary rather than acting as a hormone substitute. The mechanism of this stimulation is not given. Experiments in this report indicate that Alyt might be valuable in amenorrhea and other physiological conditions where corpus luteum function is impaired.

Daraprim For Polycythemia Vera

Daraprim, pyrimethamine, is primarily used as an antimalarial. It has characteristics of the antifolic and antifolinic acid drugs like aminopterin.

This study, employing the drug in the treatment of polycythemia vera, was published in *J. Am. Med. Assoc. 156*:1491 (Dec. 18) 1954. There were six patients in this study. They were given 25 mg. of Daraprim daily until the red blood cell count approached 4.5-5 million per cubic millimeter. When this status was obtained, the dose was continued indefinitely unless the red blood cell count continued to fall. In which case, the dose was cut in half or discontinued until the condition repaired itself.

No untoward reaction occurred and the disease in all of these patients was adequately controlled for the 11 month period of this study.

G-25671 In Arthritis

G-25671 is an analog of phenylbutazone in which the butyl side chain has been replaced by a phenylthioethyl group. Unlike phenylbutazone, G-25671 produced little or no sodium retention, consequently, no hemodilution occurs when it is used. The biologic half-life of this analogue is 3 hours as compared to 70 hours for phenylbutazone and while this would make the dosage more frequent, it is thought that the side effects would be considerably minimized.

In this study, which appeared in *Proc. Soc. Exp. Biol. Med. 86*:884 (Aug.-Sept.) 1954, daily doses of 1 to 1.6 Gm. were administered for two weeks to 10 patients with active rheumatoid arthritis and 10 with gouty arthritis. It was noted that the uricosuric effect was greater than with phenylbutazone; but the anti-inflamatory effect did not appear to be as marked. It is thought that if long term therapy produces toxicities no greater than those noted in this preliminary study, the drug will be a useful one.

G-25671 was furnished by Geigy.

Procaine For Anuria And Headache Of Concussion

Procaine hydrochloride was administered intravenously to 15 patients with concussion of the brain in an effort to relieve the headache and restore water excretion to physiological limits. It appears that it is usual to expect anuria following concussion and the headache is a result of the impaired water excretion.

This report was summarized in *J. Am. Med. Assoc. 157*:90 (Jan. 1) 1955. Beginning 6-12 hours after the concussion, 10 ml. of one percent procaine hydrochloride solution was administered intravenously for three days. This treatment was given to 15 patients. The drug was well tolerated. Headache subsided by the third day and water excretion was within physiologically compatible limits by the fifth day. In cases without this treatment, nine days were required to reach this level of fluid excretion. According to these investigators, the procaine corrected an autonomic imbalance which was responsible for the anuria.

As has been mentioned in these columns before, procaine is a most versatile drug and some of the ramifications of its uses extend into areas far afield from anesthesia.

New Drugs for Arthritis

An advance toward finding a more useful and less objectional treatment for rheumatoid arthritis has been reported by physicians at the National Institutes of Health, Bethesda, Md. According to the study appearing in the *J. Am. Med. Assoc.* 157:311 (Jan. 22) 1955, two new drugs, metacortandralone and metacortandracin, were effective in treating patients who had not responded to other treatment. The physicians pointed out that this was a preliminary study and that long-term effects could not be predicted.

They treated seven patients with rheumatoid arthritis of two to 25 years' duration. None of them had irreversible joint changes and none had responded satisfactorily to other treatment. Every patient noted improvement on the same day the new drugs were given. All reported "some easing of joint pain, diminution in stiffness, and a distinct feeling of well-being that occurred four to six hours after the first dose."

timely drugs

Achromycin Ophthalmic

. . . (tetracycline hydrochloride crystalline) is a new dosage form of Achromycin available from Lederle Laboratories Division, American Cyanamid Company. Achromycin Ophthalmic Sterilized consists of 25 mg. of tetracycline hydrochloride mixed with 25 mg. of sodium borate and 62.5 mg. of sodium chloride. It is indicated in the treatment of ocular infections caused by gram-positive and gram-negative organisms and several infections thought to be virus-like in nature such as inclusion conjunctivitis, follicular conjunctivitis and dendritic keratitis. It is also effective, in conjunction with Achromycin oral forms, in the treatment of trachoma. The new product is available in vials of 25 mg. with sterilized droppers.

Aerodrin Intransal Solution

. . . a product of Burroughs Wellcome and Company, is a combination of polymyxin B sulfate, neomycin sulfate, and methoxamine hydrochloride in an aqueous isotonic solution. It is indicated for treating engorgement or infection in the nose, nasopharynx, or sinuses, and also for the symptomatic relief and prevention of infection in allergic rhinitis. Aerodrin Intranasal Solution is supplied in plastic spray bottles.

Alflorone Acetate

. . . (fluorocortisone acetate) as a topical ointment is supplied by Sharp and Dohme. A derivative of hydrocortisone, Alflorone Acetate possesses an anti-inflammatory activity up to ten times as great on a weight-for-weight basis.

According to Sharp and Dohme, the greater anti-inflammatory activity will significantly lower the quantity of Alflorone needed to produce a therapeutic effect comparable to that of hydrocortisone. Consequently, the lowered cost of Alflorone will make long-term treatment of chronic skin conditions more practical and economical, particularly in the treatment of widespread lesions.

Alflorone acetate is supplied as a topical ointment of Alflorone acetate 0.1 percent and topical ointment of Alflorone acetate 0.25 percent both in an emollient base. Both the 0.1 percent and the 0.25 percent strengths are available in 5 Gm. tubes, with 15 Gm. and 30 Gm. tubes to follow shortly.

Aureomycin Calcium Cream

. . . (chlortetracycline calcium) has been placed on the market by Lederle Laboratories Division, American Cyanamid Company. Intended for the prevention and treatment of infection in minor cuts and abrasions, Aureomycin Calcium Cream contains 30 mg. per Gm. Aureomycin in its calcium salt form, with zinc oxide as a cream base.

Candettes

. . . are orange-flavored throat lozenges containing the antibiotics bacitracin and polymyxin together with the analgesic benzocaine. Candettes provide quick relief from sore throat. The antibiotic bacitracin is primarily effective against gram-positive disease organisms while polymyxin hits the gram-negative area. The addition of benzocaine provides an analgesic which allays throat pain without reducing taste sensations. Each Candette lozenge offers this three-way antibiotic anesthetic remedy for immediate relief from mouth and throat irritations.

Candettes is a product of Pfizer Laboratories.

Compocillin Oral Suspension

. . . (hydrabamine penicillin G, Abbott) is a ready-mixed oral suspension of the penicillin salt of hydrabamine which remains stable at least 2 months and has an appealing fresh banana smell and taste. Compocillin is indicated in infections produced by penicillin-sensitive organisms, including staphylococci, gonococci, streptococci, pneumococci, and in cases where oral therapy is known to be therapeutically effective. It may also be used prophylactically before and after such procedures as tonsillectomy and dental extractions and in patients with a history of rheumatic heart disease and other conditions where secondary infection is a recognized danger.

Cremomycin

. . . is a fruit-flavored antidiarrheal preparation combining the antibacterial activities of neomycin and Sulfasuxidine. It is a product of Sharp and Dohme, Division of Merck and Company, Inc. Cremomycin contains pectin for detoxicant action and kaolin for protective adsorbent action. The particles of this suspension are reduced to a fine state of subdivision to assure maximal contact with the intestinal mucosa.

The neomycin, which does not favor the development of resistant strains of bacteria or cause resistance to other antibiotics. has shown activity against intestinal pathogens in clinical studies. Neomycin seems to be particularly effective against paratyphoid and dysentery organisms, such as the Salmonella and Shigella groups, responsible for summer diarrheas and food poisoning.

The Sulfasuxidine, which has been effective in the treatment of intestinal infections caused by susceptible micro-organisms, is relatively non-toxic and is poorly absorbed. Thus, it provides a high concentration through its retention in the intestine. Clinical evaluation has shown Sulfasuxidine to be an effective adjunct in the management of bacillary dysentery, nonspecific diarrhea, neonatal diarrhea and ulcerative colitis.

The combination of the antibacterial agents in Cremomycin assures the general practitioner of a low bacterial count in the intestinal tract of the patient.

Cyesicaps

. . . are phosphorus-free prenatal capsules, indicated as a supplement to the diet during pregnancy and lactation. They are a product of Lederle Laboratories Division, American Cyanamid Company.

Studies have shown that calcium may be better absorbed in the human body during the period of pregnancy and lactation if it is in a lactate form, as present in Cyesicaps, rather than in phosphate form as found in earlier prenatal preparations. The absence of phosphorus in Cyesicaps also seems indicated for the improvement of typical leg cramps of pregnancy.

Depo-Testadiol Sterile Solution

. . . is a new, slowly hydrolyzed estrogen - testosterone combination providing three to eight weeks' duration of action with one intramuscular injection. Each ml. contains 50 mg. testosterone cylopentylpropionate; 2 mg. estradiol 17-cyclopentylpropionate; and 5 mg. chlorobutanol; in cottonseed oil.

Depo-testadiol provides smoother and more prolonged effects than the more rapidly absorbed estrogens and androgens in common use. Moreover, the combined use of estrogen and androgen reduces the incidence of undesired effects in both sexes. Depo-testadiol is used for the control of menopausal symptoms and in the treatment of post menopausal and senile osteoporosis.

F-Cortef Ointment

. . . containing F-Cortef (brand of fluorohydrocortisone) acetate, 1 mg. per Gm. or 2 mg. per Gm. in a bland, non-irritating base, is available from The Upjohn Company. F-Cortef, like hydrocortisone, will relieve symptoms in a variety of dermatological conditions when applied locally. Clinical reports indicate that it is effective in approximately one-tenth the concentration of hydrocortisone.

F-Cortef is indicated in the treatment of atopic, eczematoid, exudative and contact dermatitis, neurodermatitis, eczemas, and pruritis ani and vulvae.

Florinef

. . . (Squibb fluorohydrocortisone) is available as an ointment or a lotion for the treatment of dermatologic conditions. These preparations are indicated in conditions which are known to respond to hydrocortisone therapy. The ointment or lotion should be rubbed into the affected area two to four times a day.

Florinef ointment contains the active agent suspended in Plastibase (Squibb oleaginous ointment base) in concentrations of 0.1 and 0.2 percent. Florinef lotion is an 0.1 or 0.2 percent aqueous emollient suspension of the corticoid. When administered topically, fluorohydrocortisone inhibits inflammatory reactions to bacterial, allergenic and chemical agents and also has antipruritic action. The pharmacodynamic and therapeutic action of fluorohydrocortisone is ten to twenty times that of hydrocortisone. Use of these products produces no systemic effects. Also, no reactions not encountered with hydrocortisone were seen in the clinical trials with fluorohydrocortisone.

Methotrexate

. . . (4-amino-N^{10}-methyl pteroylglutamic acid), is a folic acid antagonist indicated in the treatment of leukemia in children. It is a product of Lederle Laboratories Division, American Cyanamid Company.

The therapeutic value of Methotrexate is apparently due to its structural similarity to folic acid, so that it may successfully compete with folic acid in certain chemical reactions and thus block its activity. It is frequently successful in producing clinical and hematological remission for periods varying from a few weeks to two years.

Initial clinical investigations have shown that in some cases of leukemia, Methotrexate has shown fewer undesirable side effects than other folic acid antagonists such as Aminopterin.

Methotrexate is available in bottles of 100, 2.5 mg. tablets.

Neo-Cortef Preparations

. . . Upjohn's combination of hydrocortisone acetate and neomycin sulfate is now supplied in ointment form (5 percent) and as drops for ophthalmic and otic use. Neo-Cortef combines the anti-inflammatory action of hydrocortisone and the antibacterial action of neomycin. It is used in the treatment of inflammatory conditions of the exterior segment of the eye caused by infections due to neomycin-susceptible organisms; allergies; trauma; chemical or thermal burns and following intra-ocular surgery. It is also used in the ear infections such as otitis externa and media.

Panmycin Hydrochloride

. . . (tetracycline hydrochloride) is a product of The Upjohn Company. It is supplied in tablet form and as a suspension for pediatric use. Tablets are available in the 100 mg. or the 250 mg. size. The readimixed liquid preparation is a palatable, citrus-flavored, creamy, golden suspension of Panmycin in oil. The product is stable for 18 months without refrigeration. Each 5 ml. (teaspoonful) contains 250 mg. of tetracycline hydrochloride.

Panmycin administered by mouth is absorbed from the gastrointestinal tract and readily diffuses into various body fluids including blood serum, spinal fluid, chest fluid, abdominal fluid, cord serum and saliva. Maximum blood levels are reached about two hours after administration and are maintained at high levels for six to eight hours.

Panmycin is indicated in the treatment of *beta* hemolytic streptococcic infections, E. coli infections, meningococcic, staphylococcic, pneumococcic and gonococcic infections, acute bronchitis and bronchiolitis, atypical pneumonias, and certain mixed infections.

Pentoxylon Tablets

. . . is a combination of Rauwiloid (Riker Laboratories), alkaloidal extract from *Rauwolfia serpentina*, 1 mg.; and pentaerythritol tetranitrate, 10 mg. Pentoxylon is indicated for angina pectoris and status anginosus. One or two tablets four times a day, usually at mealtime and before retiring, are recommended. Pentoxylon Tablets are supplied by Riker Laboratories, Inc.

Polycycline IM

. . . (tetracycline hydrochloride) is a new dosage form of Polycycline released by Bristol Laboratories, Inc. The intramuscular form is supplied in single dose vials of 100 mg. of tetracycline hydrochloride and two percent procaine hydrochloride buffered with ascorbic acid and magnesium chloride. No preservative is

added. To reconstitute, the powder is mixed with two ml. of sterile, distilled water. The resulting solution should be stored at room temperature (25 degrees C) and used within 24 hours.

Polycycline Pediatric Drops

. . . (tetracycline) provide a broad-spectrum antibiotic in a stable liquid form for oral pediatric use. A product of Bristol Laboratories, Polycycline Pediatric Drops require no compounding prior to dispensing and it may be stored at normal room temperatures for eighteen months. This stability has been accomplished by the use of a palatable vegetable oil which preserves the potency of the tetracycline. The new formulation is a pleasant tasting, crushed-fruit flavored suspension and was developed for convenience in the administration of smaller dosages of tetracycline hydrochloride.

Polycycline Pediatric Drops may be administered either directly into the mouth by use of the dropper or the required dosage may be mixed with orange juice, milk or other foods. In the case of infants, the drops may be added to the formula after sterilization and just prior to feeding.

Polycycline Pediatric Drops are available as a combination package which is comprised of a ten ml. bottle containing 100 mg. per ml. and a calibrated dropper for 25 mg. and 50 mg. dosages.

Prydon Spansule

. . . is a preparation of the belladonna alkaloids in the unique "Spansule" sustained release capsules for prolonged uninterrupted anticholinergic activity. Prydon Spansules are available in capsules containing either a total of 0.4 mg. of belladonna alkaloids or 0.8 mg. of the alkaloids. The smaller size is recommended for common cases of peptic ulcer and spastic conditions and the larger size for difficult cases of peptic ulcer, hypersecretion and spastic conditions. Another preparation, Prydonnal Spansules is a combination of the belladonna alkaloids and phenobarbital for use when a sedative is desired.

These sustained release capsule preparations are said to offer the following six advantages with the belladonna alkaloids in anticholinergic therapy:

1. *Continuous protection* all day or all night with only one oral dose.
2. *More restful night* for the difficult-to-manage "night secretors."
3. *Smoother therapeutic response* than can be expected from customary intermittent tablet dosage regimens.
4. *Better control of patient*—with little chance of the frequent "forgotten doses" and the consequent intervals without medication.
5. *Minimum side effects* because of the elimination of the abrupt therapeutic peaks that come with t.i.d. and q.i.d. dosage regimens.
6. *Maximum convenience*—only one dose every twelve hours.

PVP-Macrose

. . . Schenley's synthetic blood plasma expander, is now available to distributors, hospitals, retail pharmacists and physicians. Previously it had been supplied only to civil defense and government agencies.

Roetinic

. . . is a potent, soft gelatin, mahogany red capsule containing one U.S.P. unit of vitamin B_{12} with intrinsic factor concentrate, folic acid, ascorbic acid, ferrous sulfate, molybdenum, cobalt, copper, manganese, and zinc. Roetinic, a product of the J. B. Roerig and Company, Division of Chas. Pfizer and Company, is indicated in the treatment of all anemias that can be controlled and treated without transfusion. Although not specifically indicated, it may be used as adjunctive therapy in anemias accompanying cancer, leukemia, and congenital disorders, as well as Gooley's anemia, sickle cell anemia, and aplastic anemia.

Romilar Hydrobromide

. . . the first synthetic, non-narcotic drug to have the same antitussive action as codeine without sharing its drawbacks, has just been announced by Hoffmann La Roche. Romilar hydrobromide is a brand of dextromethorphan hydrobromide. Chemically, it is *d*-3-methoxy-N-methylmorphinan hydrobromide.

Romilar represents a significant advance in cough therapy since it has a specific effect in suppressing the cough reflex—without causing addiction or constipation. Published statistical analyses of more than 18,000 observations made during clinical comparison of Romilar and codeine have established that 10 mg. of Romilar is equivalent in anti-tussive activity to 15 mg. of codeine. Unlike codeine, however, Romilar is non-narcotic; it has no analgesic activity, no constipating effect and no addiction liability.

Thorazine

. . . (Smith, Kline and French's name for chlorpromazine hydrochloride) is now available in a higher oral dosage unit of 100 mg. This form is for use primarily in hospitals and mental institutions.

A neurologic depressant, Thorazine is recommended for:

1. Control of nausea, vomiting and hiccups due to a variety of causes, with dramatic control of severe and refractory cases of vomiting.
2. Control of certain mental and emotional disturbances, particularly for symptomatic control of severe agitation and acute anxiety.
3. Relief of intractable pain when used to potentiate analgesics, narcotics or sedatives.

Thorazine is also available in 10, 25, and 50 mg. tablets and in one and two ml. ampuls containing 25 mg./ml.

Tyzine

. . . (tetrahydrozoline hydrochloride) is a nasal decongestant supplied in a spray bottle by Pfizer Laboratories. Tyzine is used in the treatment of rhinitis associated with the common cold, hay fever, sinusitis, and nasopharyngitis.

Unitensen Tablets

. . . a product of Irwin, Neisler and Company, is an antihypertensive agent which acts directly on the central blood pressure regulating mechanism. Unitensen is not designed merely for the relief of symptoms, but for the sustained control of arterial high blood pressure. It is for the patient who needs more than mere tranquilization. In addition to producing decisive falls in blood pressure, Unitensen usually improves total circulation and increases cardiac efficiency.

Each Unitensen tablet contains two mg. of cryptenamine, a newly isolated alkaloid fraction of *Veratrum viride*. One of the unique properties of Unitensen is its great safety and it can be given over prolonged periods of time without cumulative effects.

by GLENN SONNEDECKER
Secretary, American Institute of the History of Pharmacy

IN PHARMACY

PERSPECTIVES

A much discussed article in the November *Reader's Digest,* "Let's Stop Abusing Hospital Insurance," focuses attention on some growing pains of our changing pattern of medical economics. This change is sweeping along with a momentum that apparently indicates a general willingness to discard the traditional principle of individual responsibility for paying the family's medical expenses.

Characteristic of our modified *laissez-faire* ("let people do"; let's see how it develops) economy, the acceptance of the insurance principle has by no means implied acceptance of any uniformly administered or regulated system to translate the principle into practice. American medical costs are now taken care of through remarkably diverse agencies, disparate insurance plans, and different methods of payment. This variety is quantified, analyzed and discussed in the book, *Paying for Medical Care in the United States,* by Oscar N. Serbein, Jr.[1]

Do the various types of voluntary health insurance shoulder a major share of the national medical bill? Somewhat surprisingly, I think, only about 15 percent of all medical care costs are paid from this source. This is the conclusion of both Serbein and the research director of the Health Information Foundation, Odin W. Anderson, who has published a preliminary report on a *National Survey of Medical Costs and Voluntary Health Insurance.*[2]

Nationally, about 45 percent of the population is covered by some form of health insurance. Rather wide variations are seen among different occupations in the percentage of workers covered (33 percent to 90 percent). Moreover, there are approximately twice as many policy holders among families earning over $5,000 a year as among families earning less than $3,000 (80 percent vs. 41 percent).

These two studies sponsored by the Health Information Foundation can be recommended to pharmacists as a source of much other information fundamental to discussing any further changes in the American version of health insurance. While insurance covers little of the 15 percent of medical costs attributed to pharmaceutical services and supplies, we have a stake in such discussions—both as consumers and producers of medical care.

These discussions are likely to be perennial on both the right and left and whichever party is in power. For it seems clear that the American value of "rugged individualism" will not counter effectively the social developments and attitudes that brought some form of health insurance in their wake at other times and places.

Already in the early European guilds of merchants and craftsmen, in the "friendly societies," and in later professional organizations, the members ordinarily could draw upon a common fund for sickness benefits and other "social security" purposes. Apparently the first compulsory system under government auspices arose in Germany a century ago, for the Prussian mining industry. Under Bismarck's social legislation, benefits gradually extended to additional occupational groups, culminating in health insurance for all employees of the lower income classes (effective 1914).[3]

This concept of paying for medical care meanwhile has spread through other nations of the most diverse political outlook, until today at least forty governments administer health insurance in some form—mainly for the lower economic groups—as part of a social security system. Most of these plans include pharmaceutical service in some manner or degree.[4]

Such a world-wide trend must be underpinned by widespread needs and beliefs. Historical evidence and inference suggest a few possible sources for the vitality of the movement. Industrialization and urbanization perhaps helped open the way through inroads upon the pattern of mutual help that was characteristic of close-knit family and community groups in a more agrarian society; at the same time industrial and urban life intensified some kinds of health problems. Into this breach came social security systems, which often presented the prospect of a desirable and feasible mechanism for administering health insurance uniformly. We can also see, supra-nationally, a marked shift away from intense individualism in various politico-social spheres toward a concept of collective security and a goal of "the greatest good for the greatest number." Intertwined with this outlook has been a persuasive argument that disease or disablement is often (or even usually) a social product —an unhappy chance blow over which the individual had no control. A more recent economic pressure stems from the spiraling cost of elaborated medical technology and procedures that are now expected as part of "adequate" service.

Under such influences the peoples of most countries have been wide open to the idea of pooling health risks to buy medical care on an insurance basis. The forms and extent of such protection have varied with differences in political tradition, economic circumstances, and the opposition of the medical profession. But nowhere, as far as I know, have people turned back to face alone the unpredictable costs of ill health. Perhaps especially in this field, the voice that speaks for insecurity to keep a people and its economy functioning vigorously remains unheard.

1. Published by Columbia University Press, New York, 1953. 543 pp.

2. Published by Health Information Foundation, 420 Lexington Ave., New York, 1954. 80 pp.

3. George Urdang and Jennings Murphy, *Position of Pharmacy in Sickness Insurance,* Madison, Wis., 1942, 24 pp.; now out of print.

4. Estimated from Carl H. Farman and Veronica M. Hale, *Social Security Legislation Throughout the World,* Federal Security Agency, Washington, D. C., 1949.

CURRENT LITERATURE

edited by SISTER MARY ETHELDREDA, *St. Mary's Hospital, Brooklyn, N.Y.*

American Professional Pharmacist

NOVEMBER, 1954—"An Administrator Looks at a Sterile Solutions Program," by Frank L. Larsen, Assistant Administrator, The Delaware Hospital, Wilmington, Del. An administrator presents attitudes toward this controversial program based on a previous study made in connection with a thesis required toward a degree in hospital administration. *page 1066*

DECEMBER, 1954—"Hospital Pharmacists Consider New Service to Nation's Hospitals," by John J. Zugich. Describes a proposal, under study by the national SOCIETY, which will attempt to promote new usefulness and research in the use of drug lists and formularies and their preparation. *page 1158*

"Pharmacy Service After-Hours—Another Method." Describes a method in practice at the Mary Fletcher Hospital, teaching institution of the University of Vermont Medical School. *page 1161*

Hospital Management

NOVEMBER, 1954—"How the Pharmacy Facilities Were Improved at the Peter Bent Brigham Hospital," by Norbert A. Wilhelm, M.D., Administrator and William E. Hassan Jr., Ph.D., Pharmacist in Chief, and P. F. Nocka. In three parts the authors present how: 1. The Administrator Appraised the Situation; 2. The Pharmacist Considered Potential Savings; and 3. How Improvements were planned. *page 40*

DECEMBER, 1954—"To Improve the Purchasing Function." Describes the conditions pharmacists consider to be desirable in uniting the pharmacist and the purchasing agent in a team as urged by the Hospital Purchasing Agents' Association of Pittsburgh. *page 77*

The Hospital Pharmacist (Canada)

NOVEMBER-DECEMBER, 1954—"Upgrading Hospital Pharmacists for Internships in Hospital Pharmacy," by Evlyn Gray Scott, Director of Pharmacy Service, St. Luke's Hospital, Cleveland, Ohio. At a meeting of the Hospital Pharmacists' Section of the Ontario Hospital Association, Oct. 26, 1954, the author described the internship program in relation to providing *trained* hospital pharmacists. *page 317*

"The Role of the Pharmacist in Teaching Pharmacology to Nurses," by Isabel Stauffer, Faculty of Pharmacy, University of Toronto. Emphasis is placed on the importance of the pharmacist giving consideration to proper departmental relationships, a knowledge of what to teach, and to the problems confronting the nurse. *page 322*

"Pharmaceutical Service and the Hospital," by C. W. Burr, Pharmacist, Royal Jubilee Hospital, Victoria, B. C. The author presents a total survey of the duties performed by the pharmacist relating his activities to the functions of the hospital. *page 332*

Hospital Progress

NOVEMBER, 1954—"Simplifying Dilutions" and "Collecting Medication Charges," by Sister M. Rebecca, O.S.B., St. Benedict's Hospital, Ogden, Utah. Describes a practical, time-saving simple piece of equipment which may be used for preparing dilutions of penicillin and other antibiotics. An effective method of collecting medication charges in a 170 bed hospital is also described. *page 84*

DECEMBER, 1954—"Pharmaceutical Service in the Small Hospital," by John W. Cronin, Guy H. Trimble, and A. M. Milne. Describes the responsibilities of a pharmacist serving a hospital on a part time basis where the full time services of a pharmacist cannot be justified. *page 69*

Hospitals

DECEMBER, 1954—"Giving Credit for Returned Drugs." Five hospital administrators and three chief pharmacists express their opinions on giving credit to patients for returned drugs. *page 34*

Modern Hospital

DECEMBER, 1954—"Pharmacodynamics in Parkinsonism" by Edmund W. J. De Marr, M.D. Presents the evaluation of the use of drugs in treatment and the three principles of therapy in patient management in this condition. *page 98*

J. Am. Pharm. Assoc., Pract. Pharm. Ed.

NOVEMBER, 1954—"A Symposium on Antibiotics," including "Antibiotics in the Hospital Pharmacy," by William E. Hassan, Jr. This section covers the various factors in purchasing antibiotics for hospitals. Other sections cover "Antibiotic Formulations," "Clinical Applications of Antibiotics," and "Antibiotics in Retail Pharmacy." *page 693*

BOOK REVIEWS

ASSAY AND DETECTION OF PYROGENS, 6" x 9", paper cover, 43 p., price: 3s 6d (postage 3rd), The Pharmaceutical Press, London, W.C.1.

This is a report of a Symposium arranged by the Pharmaceutical Society of Great Britain and the Biological Methods Group of the Society for Analytical Chemistry. The Symposium was held on Dec. 11, 1953, at University College, London. The report is reprinted from the *J. Pharm. and Pharmacol. 6*:303-345, 1954.

The Occurrence and Importance of Pyrogens, Routine Pyrogen Testing, Leucocyte Response in the Rabbit to Pyrogen from *Proteus vulgaris,* Rabbit Responses to Human Threshold Doses of a Bacterial Pyrogen, and Standards of Pyrogenic Activity are discussed by Whittet, Smith, Dawson and Todd, Dare and Mogey and Perry respectively.

Mr. Whittet is a hospital pharmacist, Mr. Smith does pyrogen assays in a pharmaceutical manufacturing company, Miss Dawson and Professor Todd are research workers in an educational institution as are also Dare, Mogey and Perry.

Mr. Whittet gives a historical resume of pyrogens and comments upon the French, English and American pharmacopoeial tests for pyrogens. Some interesting references and facts are mentioned and discussed, e.g.: "Pyrogenic samples of dextrose solutions become apyrogenic after shelf storage for six months." "Some ion exchange resins will completely depyrogenize solutions." "Pyrogens might possibly be adsorbed from solutions by the glass of the container." Mr. Whittet discusses the conditions that a hospital must meet in order that parenteral solutions manufacture be considered. He also discusses the pyrogen testing activity that the institution should carry on.

Mr. Smith notes the problems encountered in industry and the apparent inadequacy of the B.P. test. It is interesting to study the practical changes and interpretations that his laboratory has made in the official test. Description, in moderate detail, of the plan employed in large scale pyrogen testing is given.

The fact that a definite leucocyte response is elicticed upon the injection of pyrogen has furnished much thought as a possible means of pyrogen assay. Dawson and Todd discuss this area of activity using a pyrogen preparation produced by *Proteus vulgaris.*

The controversy of the relative sensitivity of man and rabbit to pyrogen is ably discussed by Dare and Mogey and the methods they employ to reach their conclusion that the rabbit is one-third to seven times as sensitive as man are given in detail.

The last paper of the Symposium by Perry deals chiefly with the desirability of establishing an international pyrogen standard and the part that the World Health Organization is playing in this regard. He discusses rabbit tolerance to pyrogen with special reference to the pyrogen origin. Interesting discussion is conducted on the research that is under way and that which should be under way.

The Symposium is unique in that it is extremely timely especially for the hospital pharmacist and it is pleasing indeed at last to see this subject so comprehensively discussed. It is regrettable, however, that there is no reference to such minor but important details as the most appropriate size and length of needle to use for injecting the marginal vein of the rabbit ear and the effect of the rate of injection upon rabbit response. The presentation is entirely delightful and coherent and is given in that impeccable style that only the British can accomplish.

LEO F. GODLEY

BRITISH PHARMACEUTICAL CODEX 1954. Published by direction of the Council of the Pharmaceutical Society of Great Britain. 6" x 9", xxxii + 1,340 pages. Published by The Pharmaceutical Press, 17 Bloomsbury Square, London W.C. 1, England. Price $8.80 plus approximately $0.50 postage.

The British Pharmaceutical Codex is a book of reference for those engaged in prescribing or dispensing medicines. The *Codex* serves several useful functions. It contains a commentary on drugs included in the *British Pharmacopoeia* as well as for those which are not official but continue to be used extensively. In reference to the latter, the *Codex* serves the additional important function of providing standards for these nonofficial drugs. Further, the book contains an extensive formulary section which should prove most helpful to the practicing pharmacist or physician when he wishes to employ a tested formula for a preparation which is usually prepared extemporaneously.

The scope of the British *Codex* is reflected in the titles of the six main headings, which are: General Monographs; Antisera, Vaccines and Related Substances; Preparation of Human Blood; Surgical Ligatures and Sutures; Surgical Dressings; and Formulary. In addition to the appendixes on weights and measures, atomic weights, reagents, qualitative tests, and sterilization, a new appendix on isotonic solutions has been included.

The general monographs, in addition to general descriptive material, contain helpful statements on the actions and uses of drugs described. Where applicable, statements on the treatment of poisoning are also included. These two features greatly enhance the value of the book to the practicing pharmacist and physician.

The formulary section of the *Codex* is extensive, running 260 pages. It includes formulas for preparations of those drugs described in the general monographs as well as numerous formulas for other commonly used pharmaceutical preparations. Several formulas for preparations designed especially for infants are included. Tolerances and assay procedures have been included for many preparations usually made extemporaneously.

This, the sixth edition of the *Codex,* has been thoroughly streamlined by the elimination of much now obsolete material contained in the previous editions. The Revision Committee is to be congratulated for the excellent reference work they have prepared. The *British Pharmaceutical Codex* is a useful reference tool for hospital pharmacists as well as for others concerned with the use of drugs.

DON E. FRANCKE

THE PHYSICIAN AND HIS PRACTICE. Edited by Joseph Garland, M.D. 6" x 8", xii + 270 pages. Published by Little, Brown and Company, Boston, Mass. 1954. Price $5.00.

The Physician and His Practice has been planned primarily as a source book of information regarding the physician's career rather than as a detailed guide for the young doctor. It is a book that practitioners of longer standing may also find of value as they review their methods of practice, their material equipment, and the resources of the communities in which they live and work.

Emphasis is placed on the character and personality of the physician and the standards that are expected of him. The fields that medicine now encompasses are defined, with discussions of the various types of activities that they offer, the necessity of hospital affiliations, the place of organization and organizations in the profession, and the physician's need for continued study.

Certain chapters are devoted to the business considerations of medical practice. The chapter, "Drugs and Medical Supplies," will be of particular interest to pharmacists, while all portions of this collection of essays by many noted authorities will offer the discerning reader an additional insight into the physician's way of life. *The Physician and His Practice* makes no attempt to reveal the one correct answer to each obvious question. Each of the 18 authors of the chapters makes his original contribution to the understanding, if not always to the immediate solution, of the special problems on which he writes. All of which makes for highly interesting and informative reading.

JOANNE BRANSON

LEGAL MEDICINE, PATHOLOGY AND TOXICOLOGY. By Thomas A. Gonzales, M.D., Morgan Vance, M.D., Milton Helpern, M.D., and Charles J. Umberger, Ph.D. 7" x 10", 1,349 pages. Published by Appleton-Century-Crofts, Inc., New York. Second edition, 1954. Price $22.00.

This book is a manual on legal medicine and toxicology. Written by three medical examiners and a toxicologist of the City of New York, this volume is an amazingly comprehensive work which so completely and thoroughly covers the subjects of legal medicine and toxicology that it should be a constant reference for those concerned with these subjects.

The first forty chapters of the book are of special interest to the pathologist who must determine the cause of death by autopsy. However, of special interest to pharmacists are the six chapters devoted to poisons and the chapter on general toxicology. Included are discussions on corrosive poisons; inorganic metallic and nonmetallic poisons; volatile, nonvolatile, and non-alkaloidal poisons; alkaloidal poisons; and miscellaneous poisons including food, plants, animals, biological products, and organic drugs. The toxic effects of a great many commonly used drugs, chemicals and household substances, including pesticides, are discussed in detail. Helpful suggestions for the treatment of poisoning caused by the various agents are given. The material given in this portion of the book makes it a useful reference for the practicing pharmacist who is so often contacted for information of this type.

There are also seven chapters devoted to analytic toxicology. These are concerned with the methods of detection, isolation, and identification of drugs, chemicals, and other poisons from the body. While these chapters are written for the expert who makes such analyses his chief work, they contain much information which may, upon occasion, be helpful to the practicing pharmacist. For instance, the well-organized and extensive tables of color reactions may be particularly helpful because so many modern and commonly used drugs are included. Also, several pages of characteristic crystal forms of a number of drugs, as well as an extensive table of compounds with their reactions to analytic tests, are included in the appendix.

The book is well printed and contains a large number of illustrations.

DON E. FRANCKE

HOSPITAL FORMULARY OF SELECTED DRUGS by Don E. Francke, Chief Pharmacist and Secretary of the Pharmacy and Therapeutics Committee, University Hospital, University of Michigan. xvi + 759 pages. The Hamilton Press, Hamilton, Illinois. Cloth. $5.00.

This new edition of the *Hospital Formulary of Selected Drugs* represents a considerable expansion of material and reflects the studied care and thought that go into a fine and useful work. Remedies that have scarcely been introduced in some localities are included and that should be an indication of the timeliness and scope of the formulary.

The Foreword by William H. Beierwaltes, M.D., Chairman of the Pharmacy and Therapeutics Committee of University of Michigan Hospital, points out that a hospital formulary should aid the medical staff in its three objectives: to diagnose and treat, to evaluate and to investigate. He asserts that the author has again accomplished these objectives in the 1954 edition.

Although this volume is prepared primarily for use in the author's hospital, the format and appearance is such that is would satisfactorily serve the formulary needs of any hospital. It appears that the author made a conscious effort to make the volume so that it would be acceptable and usable in any hospital and clinic, or as a reference book in the library or physician's office.

The preface includes "policies of the committee," which committee functions in accordance with the recommendations of the *Minimum Standard for Pharmacies in Hospitals.*

The table of contents portrays a skeletal outline of the medicinal agents section which is arranged therapeutically into 24 alphabetical sections, from Antihistamines to Vitamins.

The monographs have an eye appealing arrangement including the official or generic name of the item with its trade names or synonyms, the chemical formula, pharmacology, dosage, and available dosage forms. The forward look of the formulary is maintained to the extent that there is an indication placed by the title of preparations that are scheduled to be official in the forthcoming revisions of the U.S.P. XV and N.F. X; and preparations that are subject to control under the Harrison Narcotic Act are marked with an asterisk.

The general information section of the formulary includes chapters on Prescription Writing, Conversion Tables, Biochemical Tables, and Antidotes and Treatment of Poisoning.

The 20 page index appears adequate in scope and arrangement. Although the volume is more than 700 pages, it is an amazingly small and attractive book.

LEO F. GODLEY

ASHP affiliates

Southern California Society

According to *The Bulletin News,* official publication of the Southern California Society of Hospital Pharmacists, the following new officers were installed at the November 10 meeting: *President,* Joseph E. Ball; *Vice-President,* Alice Calnon; *Recording Secretary,* William Harms; *Treasurer,* Luba Perlmutter; and *Corresponding Secretary,* Norma Irish. The meeting was held at the Queen of Angels Hospital in Los Angeles with Sister Mary Junilla, Chief Pharmacist, as hostess.

In addition to the installation of new officers and announcement of committee chairmen for the new year, reports were received from the committees. A recommendation providing for joint membership in the Greater Los Angeles A.Ph.A. Branch and the Southern California Society of Hospital Pharmacists was also considered. A committee was appointed to investigate the advisability of joining the A.Ph.A. Branch as a group or on an individual voluntary basis.

The January 10 meeting of the Southern California Society was held at the Mona Lisa Restaurant in Los Angeles. The guest speaker was Mr. Frank O. McIntyre who is Director of Public Relations for the California Teachers' Association.

Ohio Society

The program for the Fifteenth Annual Meeting of the Ohio Society of Hospital Pharmacists is scheduled for March 7, 8, and 9 at the Netherland Plaza Hotel in Cincinnati. Meetings will be held in conjunction with the Annual Convention of the Ohio Hospital Association. The program is in charge of Mrs. Evlyn Gray Scott, President-Elect of the Ohio Society. Details regarding the program will appear in a forthcoming issue of THE BULLETIN.

Midwest Sisters' Association

The November meeting of the Midwest Association of Sister Pharmacists was held at Resurrection Hospital in Park Ridge, Ill. Mr. Joseph J. Shine, Editor of the *Central Pharmaceutical Journal,* discussed the Suggested Prescription Fee Schedule and its application to Hospital Pharmacy.

The Midwest Sisters' Association continues to publish *The Adjuvant* through which members of the group are kept informed of the organization's activities.

Toledo Society

The Toledo Society of Hospital Pharmacists held its annual Christmas dinner as guests of Miss Eula Smith, Flower Hospital, on December 16. At the business meeting following the dinner, the following officers for the 1955 term were elected: *President,* Eric Theller, Fremont Memorial Hospital, Fremont, Ohio; *Vice-President,* Theodorsia Tucker, Mercy Hospital, Toledo; and *Secretary-Treasurer,* Alice Banachowski, Riverside Hospital, Toledo.

Western Pennsylvania Society

Pharmacists, administrators, and nurses were present for the October 21 meeting of the Western Pennsylvania Society of Hospital Pharmacists. The speaker was Mr. Herbert L. Flack, Director of Pharmacy Service at Jefferson Hospital in Philadelphia. His paper entitled "New Concepts of Pharmacy Service on the Nursing Units," presented practical solutions to problems in providing pharmaceutical service.

Cleveland Society

The Cleveland Society of Hospital Pharmacists sponsored a half-day program on December 29 to acquaint students with hospital pharmacy practice. Pharmacy students in the area were invited to attend. The program included tours of St. Luke's Hospital and St. Vincent Charity Hospital, both in Cleveland.

Recent new members of the Cleveland Society include Mr. S. H. Lindsey of Highland View Hospital; Mr. Frank Roeder of Crile V.A. Hospital; and Mr. Harry Hart of the Upjohn Company.

Arizona Society

Mr. Shahjean Karim from Pakistan, and now attending the University of Arizona, was the guest speaker at the October 17 meeting of the Arizona Society of Hospital Pharmacists. The meeting was held at the Tucson Medical Center, Tucson. Mr. Karim spoke on pharmacy in his country and also concerning customs and health conditions in Pakistan.

Included also on the program was presentation of the recording with messages from the A.Ph.A. secretary, Dr. Robert P. Fischelis, and from the ASHP president, Dr. George F. Archambault.

New members introduced at the October meeting of the Arizona Society included Mr. T. D. Cook, Maricopa County Hospital, Phoenix; Mr. Gene Knapp, U. S. Indian Service, Phoenix; Miss June Kimberlin, Memorial Hospital, Phoenix; and Mr. Manuel Leon, St. Mary's Hospital, Tucson.

Akron Area Society

"Improving Operations In The Pharmacy," was the subject of a panel discussion at the November 9 meeting of the Akron Area Society. With Mr. Leon Bailey as moderator, the discussion covered the following subjects: "Charge-a-Plate" method of making charges in hospital; reordering prescriptions; floor stock-

ing combinations of drugs; ampul board; plastic eye tubes; plastic printed bottles; hand cream; and procedural manuals. Twenty-one members were present for the meeting which was held at the Youngstown Southside Hospital.

The program for the December 14 meeting of the Akron Area Society included a talk on "A System for Charging Drugs," by William Slabodnick, Massillon City Hospital, Massillon; and a film entitled "By Jupiter." The meeting was held at the Aultman Hospital in Canton, Ohio.

Oklahoma Society

The first annual convention of the Oklahoma Society of Hospital Pharmacists was held jointly with the convention of the Oklahoma State Hospital Association on November 4 at the Skirvin Tower Hotel in Oklahoma City. Included on the program was a talk on "Therapeutic Team in the Hospital," by Dr. Harold A. Shoemaker, Professor of Pharmacology, University of Oklahoma, and a discussion on "Accreditation of the Pharmacy Department," by Sister M. Teresa, Chief Pharmacist at St. Anthony Hospital, Oklahoma City. Participants in a panel discussion included a hospital administrator, an educator, a physician, a hospital pharmacist and a nurse.

The regular November meeting of the Oklahoma Society was held on November 20 at the Lockett Hotel in Norman. The principal speaker was Dr. Arthur A. Hellbaum, Professor of Pharmacology of the University of Oklahoma Medical School.

Northern California Society

Approximately 150 members and guests attended the December 29 dinner meeting of the Northern California Society at which time President George Archambault was guest speaker. The dinner was held in Berkeley in conjunction with the meeting of the Pharmacy Section of the American Association for the Advancement of Science.

"Poliomyelitis" was the subject of a talk by Dr. E. B. Shaw at the November 9 meeting of the Northern California Society which was held at Children's Hospital in San Francisco.

Mr. Alphonse A. Seubert, University of California Hospital, was installed as president at a recent meeting of the Northern California Society. Other officers are Mr. Stanley Marinčik, *Vice-President*; Mr. Eric Owyang, *Treasurer;* and Miss Marie B. Kuck, *Secretary.*

Northeastern New York Society

Members of the Northeastern New York Society of Hospital Pharmacists met for a dinner meeting at Jack's Restaurant in Albany on December 9. Pharmacists attending were from hospitals in Albany, Troy, Schenectady, Hudson, Amsterdam, and Syracuse.

Massachusetts Society

"Should the Massachusetts Society of Hospital Pharmacists Require Membership in the ASHP as a Prerequisite for Local Membership?" was the subject of a discussion at the November 17 meeting of the Massachusetts Society. Facts regarding affiliation with the national organizations, services offered, and reasons for individual memberships were discussed.

During the business session plans were outlined for participation in the New England Council of Hospital Pharmacists which will meet in conjunction with the New England Hospital Council on March 31 and April 1.

Maryland Association

ASHP President George Archambault and Mr. Robert Cathcart, Director of Pharmacy Service at the Delaware Hospital, Wilmington, Del., were the principal speakers at the November 16 meeting of the Pharmacy Section of the Annual Conference of the Maryland-District of Columbia-Delaware Hospital Association in Washington. The meeting was sponsored by the Maryland Association of Hospital Pharmacists with President Stephen Ruth presiding.

Discussing the activities of the Society, Dr. Archambault's paper was entitled "Where to Now in Hospital Pharmacy?" He urged hospital pharmacists to establish internship programs in order that *trained* hospital pharmacists can be provided for the nation's hospitals. Mr. Cathcart, speaking on "Modernization of Your Hospital Pharmacy," related his experiences in organizing a new department, purchase of proper equipment, and problems in preparing parenteral solutions in the pharmacy.

Southeastern Florida Society

The Southeastern Florida Society of Hospital Pharmacists has applied for affiliation with the national organizations. The matter is presently pending approval by the ASHP Executive Committee.

A joint meeting of the Miami Branch of the A.Ph.A. and the Southeastern Florida Society of Hospital Pharmacists was held at Jackson Memorial Hospital on November 22. Included on the program was a round table discussion on tetracycline and a film on "Varidase."

Mrs. Anna D. Thiel, Chief Pharmacist at the Jackson Memorial Hospital, presented a report on a recent meeting of the Florida Society of Hospital Pharmacists in West Palm Beach.

Western New York Chapter

Mr. John Pazderka of the University of Buffalo Pharmacy School was the guest speaker for the November 9 meeting of the Western New York Chapter of the ASHP. He spoke on "New and Interesting Drugs," covering coagulants and anticoagulants, rauwolfia preparations, methonium, dibenzylene, Ilidar, Regitine and Benodaine.

Greater New York Chapter

The November 16 meeting of the Greater New York Chapter of the ASHP was held at St. Mary's Hospital in Brooklyn at 2:30 P.M. The president, Sister Etheldreda, conducted a short business meeting prior to the scheduled film and lecture.

A film covering the use of Varidase in burns, hemothorax, peripheral vascular disease, ulcers, skin grafts and artificial limbs was shown. Mr. D. Hawkins from the Lederle Laboratories presented a talk on the enzymes found in Varidase namely, streptodornase and streptokinase. A brief question and answer period ensued and the meeting terminated with refreshments at 4:30 P.M.

Greater St. Louis Association

Provisions for drugs in the Blue Cross plans were discussed at the November 4 meeting of the Hospital Pharmacists' Association of Greater St. Louis. A representative from Blue Cross was present to answer questions. The meeting was held at St. Mary's Hospital.

as the president sees it

GEORGE F. ARCHAMBAULT
U. S. Public Health Service, Washington, D. C.

Date Line—January 11, 1955, Washington, D. C.—No snow, no sleighbells, spring moving in fast. Soon comes Eastertime, Maytime, and Conventiontime. Is your Chapter sending a delegate to Miami? Now is the time to plan to have your chapter represented at the meeting. Here is my next-to-last message to you in this column.

President's Log—Airborne, the better to meet as many members as possible. November to Albany, New York for the meeting of the Executive Committee of the Northeastern New York Society of Hospital Pharmacists. President Benjamin Teplitsky presided and the names and photographs of others participating appear below.

This offered an opportunity to discuss the local chapter, its membership and future plans. When you're up Albany-way, stop in to see Teplitsky's pharmacy, and Walter Hartmann's pharmacy at Ellis Hospital in Schenectady. They are examples of the modern functional pharmacy.

Sterling-Winthrop Research Institute Seminar. Guest lectured at the Sterling-Winthrop Research Institute Seminar, Rensselaer, N. Y., on "A Method of Drug Evaluation, Selection and Utilization Currently Used by Hospitals." The research staff of the Institute displayed keen interest in the subject, and showed it by their many questions and live discussion. I wish it were possible for all of us utilizing researcher's products to have a similar inspirational opportunity to talk with and visit with the men and women who are developing tomorrow's drugs.

President George Archambault met with the Executive Committee of the Northeastern New York Society on November 19. Shown in the photo above, left to right are Virginia Manory, St. Peters Hospital, Albany; Florence Miller, Albany Hospital, Albany; Caryl Heeder, Columbia Memorial Hospital, Hudson; George Archambault; Benjamin Teplitsky, V.A. Hospital, Albany, N.Y.; Louis Jeffrey, Albany Hospital, Albany; Lucy Manvel, Leonard Hospital, Troy; and Violet Spaulding, Memorial Hospital, Albany.

December—Association of Military Surgeons. While Editor Francke, and Colonel Henry Roth and others, were ably representing the SOCIETY in Brazil at the Pan-American Congress of Pharmacy, I was here in Washington and presided over the Pharmacy Section Program of the 61st Annual Convention of the Association of Military Surgeons of the United States. Dr. Charles Letourneau of the American Hospital Association, Dr. Clifton K. Himmelsbach of the U. S. Public Health Service, and Dr. John Scigliano of the Clinical Center, National Institutes of Health, under the direction of Moderator Grover Bowles discussed "Pharmaceutical Aspects Involved in the Accreditation of Hospitals." Other speakers were Dr. Robert Fischelis, Mr. Newell Stewart, Dr. Lloyd Miller, and Dean H. Muldoon.

Institute on Hospital Law—At mid-month flew westward to Chicago and the Hospital Law Institute of the American Hospital Association,—spoke on "The Law of Hospital Pharmacy."

American Association for the Advancement of Science—Berkeley, California. Day after Christmas, back into the sky, non-stop to the West Coast for the Pharmacy Meeting of the A.A.A.S. Many West Coast hospital pharmacists were there. Jerome Yalon, University of California Hospital, read a paper of special interest to hospital pharmacists, "The Current Status of the Use of Succinates as Therapeutic Agents." Claude Busick, presided over one session and your President over another. A. Seubert, University of California Hospital Pharmacy, spoke on the "Potential Hazards in the Use of Boric Acid." Kenneth Nelson, M.D., Medical Officer in Charge, U. S. Public Health Service Hospital, San Francisco; Donald C. Brodie, Professor of Pharmacy, School of Pharmacy, University of California; and I served on a panel with Claude Busick as Moderator—Subject: "Administrative Responsibilities of the Hospital Pharmacist as Viewed by a Hospital Administrator, A Pharmaceutical Educator and a Hospital Pharmacist."

Northern California Society of Hospital Pharmacists. On the 29th, the Northern California Society of Hospital Pharmacists held its December Dinner Meeting. Your president spoke on "What's Ahead in Hospital Pharmacy," and in keeping with the immediate aspect of the subject, was able to read the just arrived telegram from Washington "Busick President-Elect." Congratulations and Best Wishes to you, Claude, and to the other elected officers—Milton Skolaut, Vice President-Elect, and Sister Mary Rebecca, Treasurer-Elect.

Arizona Society of Hospital Pharmacists. On the 30th in Phoenix where Eli Schlossberg, Dean of Arizona Hospital Pharmacists, Chief Pharmacist of the State

Hospital at Phoenix, met me at the plane. After a fast tour of his hospital, I enjoyed a get together of Arizona hospital pharmacists, pharmaceutical educators, and hospital administrators, and their wives, at the Schlossberg's. Later at a dinner meeting, I addressed the group on "Your Society, the A.S.H.P. and You." Arizona hospital pharmacy may lack numbers but it has tremendous wealth in enthusiasm and *esprit de corps*. From far away Tucson came two cars of hospital pharmacists and educators. Secretary Y. Dishner and President H. Riddle have a wonderful group. Incidentally, it was a real pleasure to again meet Mrs. M. P. Brewer, an active member of our Committee on Pharmacists in Small Hospitals.

January—Catholic Hospital Association Headquarters. In St. Louis reviewing plans for the May Hospital Pharmacy Institute of the Catholic Hospital Association and discussing ASHP business with your Treasurer, Sister Mary Berenice. During the day and into late evening discussed hospital pharmacy institute programs with Father Flanagan and in detail with Pharmacy's friend, Ray Kneifl, and with Sister Mary Berenice, and Sister Mary Ludmilla, the SOCIETY's first Treasurer.

American Hospital Association Headquarters. From St. Louis to Chicago, this time with flight delays and bad weather "up above." Here in Chicago to work first with Paul Parker, your Program Chairman, and then with the *Institute Planning Committee of the ASHP and American Hospital Association.* Planning this year's Institutes for Atlanta (August) and Chicago (June) were Paul Parker, Chicago; Lillian Price, Georgia; Gloria Niemeyer, Washington; Don Francke, Michigan; Dr. C. Letourneau, Chicago; and Mrs. B. Hanna, Chicago. A splendid program has been developed for both Institutes. *Register early.* Practically every suggestion received from you folks during the year has been adopted and included in one or both Institutes. We hope you will be pleased.

Radioactive Isotope Pharmacy. While in Chicago, I took time out for a visit to Paul Parker's University of Chicago Clinics Pharmacy. This is a must visit for those of you attending the Chicago Institute—A streamlined functional outpatient pharmacy department filling over 4,000 prescriptions weekly, a new in-house pharmacy under construction and an active Radioactive Isotope Prescription Department operating as part of the Pharmaceutical Service. Pharmacists Parker, Solyom, Neef, Summers, and associates may well take real pride in displaying their operation to you this summer. Also, while in Chicago, a visit to the American Hospital Association Headquarters with Parker and Miss Niemeyer to discuss with American Hospital Association officials their plans for housing para-medical and other hospital disciplines in their proposed new edifice. More on this later.

Joint Committee Meeting—A.H.A.-A.S.H.P. Saturday, January 8, Chicago. This entire day spent in committee activities developing detailed plans for a hospital pharmacy procedural manual, suggested standards for pharmacy services to be employed by the Joint Commission on Accreditation of Hospitals in accrediting *all* hospitals of *all* sizes and the utilization of pharmacists in the very small hospitals. Francke, Niemeyer, Past-President Beck and your President represented the SOCIETY at this meeting with Dr. C. Letourneau, Dr. R. Cadmus and John Zupich, representing the American Hospital Association.

Thought for the Month—10,548 Medical internships are offered by 853 *approved* teaching hospitals, 137 *approved* teaching hospitals offer 399 Dental internships, 635 Dietetic interships in 57 *approved* teaching hospitals. Hospital pharmacy, in planning its future, can ill afford to think of internships in other than the approved A.M.A. teaching hospitals.

American Pharmaceutical Association Elections. Congratulations to ASHP Associate Members John Heinz of Utah, and Louis Fischl of California on their election to the Presidency and Council of the American Pharmaceutical Association. We're proud of their success. We know that hospital pharmacy will receive proper consideration during their terms of office. Congratulations also to Dean Troy Daniels, Mr. George Roberts, Dr. H. Dunning, and Mr. H. Gregg for their victories on the American Pharmaceutical Association slate. Pharmacy has again chosen well.

Miami Convention. Your Annual Convention is scheduled for May 1 through May 6. May 1, 2, and 3 are ASHP meeting days, with the 4, 5, and 6 devoted to American Pharmaceutical Association Activities. Make plans now to attend. The local hospital pharmacy committee in Miami under the direction of Anna Thiel and Lee Neidlinger plan big doings for ASHP members.

HAPPY EASTER

George F. Archambault

Calendar Of Meetings

1955

New England Hospital Assembly (including Pharmacy Section)—March 28-30, 1955, Boston, Massachusetts.

Southeastern Hospital Conference (including Southeastern Society of Hospital Pharmacists)—April 20-22, 1955, Atlanta, Georgia. (Hotel Biltmore)

Association of Western Hospitals (including Pharmacy Section)—April 25-28, 1955, San Francisco, California.

American Pharmaceutical Association—May 1-6, 1955, Miami Beach, Florida.

American Society of Hospital Pharmacists,—May 1-3, 1955, Miami Beach, Florida.

Tri-State Hospital Assembly (including Pharmacy Section)—May 2-5, Chicago, Illinois, (Palmer House)

Catholic Hospital Association—May 16-19, 1955, St. Louis, Missouri.

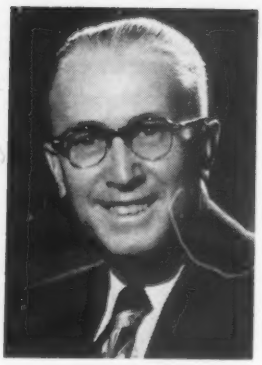
Institute on Hospital Pharmacy—June 13-17, 1955, University of Chicago, Chicago, Ill.

Institute on Hospital Pharmacy—August 22-26, 1955, Emory University, Atlanta, Georgia. (Tentative)

British Pharmaceutical Conference—August 27-31, 1955, Scotland.

International Pharmaceutical Federation—September 19-23, 1955, London, Eng.

NEWS



C. L. Busick

ASHP Officers for 1955-1956

Claude L. Busick, Chief Pharmacist at St. Joseph's Hospital in Stockton, California, has been elected president of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS for the 1955-1956 term. Mr. Busick, who is now serving as Vice-President of the SOCIETY, has participated in Society activities over a period of several years. He is also currently serving as President of the Northern California Society of Hospital Pharmacists, one of the largest affiliated chapters of the ASHP.

The vice-president-elect, Mr. Milton Skolaut, is Chief of the Pharmacy Department of the Clinical Center, National Institutes of Health in Bethesda, Maryland. He has served on the Society's Executive Committee and participated in numerous committee activities.

Sister Mary Rebecca, the treasurer-elect, is chief pharmacist at St. Benedict's Hospital in Ogden, Utah. She has played an active role in the Utah Society of Hospital Pharmacists and is currently serving as a member of the ASHP Committee on Membership and Organization.

The ballots were counted by a committee of three ASHP members appointed by President George F. Archambault and the results submitted to the Secretary, Gloria Niemeyer. Included on the Committee were Mr. Robert Capehart, President of the Maryland Association of Hospital Pharmacists, P.H.S. Medical Supply Depot, Perry Point, Md.; Mr. Franklin Cooper, George Washington Hospital, Washington, D. C.; and Mr. Basil Ketcham, President of the Philadelphia Hospital Pharmacists' Association, V. A. Hospital, Philadelphia, Pa.

National Hospital Week

Hospital pharmacists will again be urged to participate in National Hospital Week which is scheduled for May 8-14, 1955. With the theme, "Your Hospital . . . A Tradition of Service," pharmacists have an opportunity to depict the role of their profession in serving the public. Participation in community activities, vocational guidance or career days, television and radio programs and presenting exhibits all contribute toward the total effort in telling the public what your hospital is doing. Also, your pharmacy can be an example in showing one of the hospital services.

Again this year the American Pharmaceutical Association will offer a suitable plaque as an award for the best pharmacy display in a hospital arranged by hospital pharmacists during National Hospital Week.

To be eligible for this award, the hospital pharmacists arranging the display must be members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS and the American Pharmaceutical Association, and the display must have the approval of the administrator of the hospital. It must tie in with the theme of National Hospital Week: "Your Hospital . . . A Tradition of Service." It must not consist of advertising material of any firm, but must display originality, good taste, and a strictly professional atmosphere.

Two 8 x 10 inch glossy prints of photographs of the display should be sent to the Secretary of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS not later than June 1, 1955, in order to be entered in the contest. The Committee on Public Relations of the A.Ph.A. will judge the displays and make the selection of the one considered best. The committee will obviously be named from among persons who have not entered the contest and who are competent to judge the quality of displays of this character.

International Pharmaceutical Federation to Meet in London

The dates of the 1955 meeting of the International Pharmaceutical Federation in London, England have been set for September 19 to 23 inclusive. In addition to the general program of the Federation, the Section of Hospital Pharmacists will hold three meetings. Two sessions will be for the presentation and discussion of science papers and one will be for professional subjects. The two science sessions will take the form of symposia at which three principal speakers will address the meetings on the selected topics which are: The Preparation of Injectible Fluids and The Absorption of Medicaments by Various Routes of Administration. After the formal presentation, ample time will be allowed for full discussion by members of the section.

Those who wish to present a paper on a professional subject should submit a copy of it in duplicate to Mr. Herbert S. Grainger, Secretary-General, Section of Hospital Pharmacists, International Pharmaceutical Federation, Westminster Hospital, London S.W. 1, by May 1. Because of the limited time available for the presentation of professional subjects, a selection will be made of those papers which are deemed to be of the greatest general interest.

Further details on the general program of the International Pharmaceutical Federation will appear in a future issue of THE BULLETIN.

Floor Plans of Hospital Pharmacies Available

Parke, Davis and Company has recently released a unique "Portfolio of Designs of Hospital Pharmacies." Included are sketches of floor plans and layouts for 23 hospital pharmacies serving hospitals ranging from 80 to 1,500 beds. Two pages are devoted to pharmacies in hospitals of less than 150 beds, four pages to those in hospitals with 150-300 beds, and 12 pages to those in hospitals having more than 300 beds.

The pharmacies included are located throughout the United States and represent several types of institutions. The hospitals represented in the Portfolio are as follows: George H. Lanier Memorial Hospital, Langdale, Ala.; Jewish Hospital, Louisville, Ky.; Western Baptist Hospital, Paducah, Ky.; Olympic Memorial Hospital, Port Angeles, Wash.; Firmin Desloge Hospital, St. Louis; St. John's McNamara Hospital, Rapid City, S. D.; Magic Valley Memorial Hospital, Twin Falls, Idaho; Glen Falls Hospital, Glen Falls, N. Y.; General Rose Memorial Hospital, Denver; St. John's Hospital, Detroit; St. Luke's Hospital, Kansas City; St. Joseph's Hospital, Phoenix, Ariz.; Contra Costa County Hospital, Martinez, Calif.; The Presbyterian Hospital, New York City; Saint John's Hospital, Santa Monica, Calif.; Buffalo General Hospital, Buffalo, N. Y.; Harrisburg Polyclinic Hospital, Harrisburg, Pa.; The Carney Hospital, Dorchester, Mass.; St. Luke's Hospital, Duluth, Minn.; St. Francis Hospital, Lynwood, Calif.; St. John's Hospital, Springfield, Ill.; Children's Hospital of Michigan, Detroit; and Peter Bent Brigham Hospital, Boston.

Copies of the portfolio are available to interested hospital pharmacists or administrators who send their requests to the Hospital Sales Division, Parke, Davis & Company, Detroit 32, Mich.

C.H.A. Institute

Plans have been completed for holding the 1955 Institute of the Catholic Hospital Association in St. Louis, May 14-17. The program is in charge of the Committee on Pharmacy Practice.

Oregon Society Sponsors Exhibit

Oregon Society Sponsors Exhibit

The Oregon Society of Hospital Pharmacists featured manufacturing activities in a display at the Oregon State Medical Society meetings, October 13-15. Utilizing space furnished by the Oregon Branch of the American Pharmaceutical Association, the booth included a fine porosity porcelain candle filter, sterile vial filling and capping equipment and an insight into other activities undertaken by local hospital pharmacy departments. Frank W. Hollister, Good Samaritan Hospital, Portland, is president of the hospital group.

Pharmacy Section of A.A.A.S.

The Pharmacy Section of the American Association for the Advancement of Science has now been formally established as a full Section. It was formerly a Subsection of the Section on Medical Science. Pharmacy is represented by the American Pharmaceutical Association as an affiliated organization with related groups, including the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, having the status of associated organizations.

The A.A.A.S. operates on a calendar year basis for all appointments to the Council and to committees. At the Convention of the A.Ph.A. and related organizations in Boston, the following members of the Committee-at-Large of the A.A.A.S. Section were designated with terms of office as indicated:

Robert C. Anderson, Eli Lilly and Company, Indianapolis, Ind., representing the A.Ph.A. (1958); Arthur J. McBay, Massachusetts College of Pharmacy, Boston, Mass., representing the A.A.C.P. (1947); George F. Archambault, U. S. Public Health Service, Washington, D. C., representing the ASHP (1956); Leroy Weidle, Jr., retail pharmacist, St. Louis, Mo., representing the A.C.A. (1955). The terms of appointment terminate on

December 31 of the year indicated. In the future all members of the Committee will be appointed on a four-year term so that the Committee-at-large will be rotating committee. Members of the Committee are nominated by the affiliated or associated society and elected by the Board of Directors and the Council of the A.A.A.S. In the future each person named to the Committee will serve for a four-year term.

It is important that the committee hold a meeting each year at the same time as the A.A.A.S. meeting held during the week of December 26. It is requested that each organization which has not already done so make provision in their budget for the committee representative to attend the A.A.A.S. meeting. Future meetings of the Association are scheduled as follows: 1955—Atlanta, Ga.; 1956—New York, N. Y.; 1957—Indianapolis, Ind.; and 1958—Washington, D. C.

At the A.A.A.S. meeting in Berkeley, Dr. John E. Christian, Purdue University School of Pharmacy, Lafayette, Ind., was elected Secretary for a four-year term. All future correspondence related to the Section should be addressed to Dr. Christian.

Thomas Foster Honored

Pharmacist Director Thomas A. Foster of the U. S. Public Health Service was honored by the Executive Committee of the Association of Military Surgeons for conspicuous service to the Association. The award, in the form of a medal and scroll, was presented by Surgeon General Scheele at a Banquet held at the Statler Hotel in Washington, December 1. Mr. Foster, one of the founders of the Association of Military Surgeons, was also General Chairman of the banquet. Mr. Foster is one of the Charter Members of the SOCIETY and has served on numerous committees. He is at present Chairman of the SOCIETY's Committee to Study the Role of Pharmacists in Small Hospitals.

Foster Scheele

Guy Trimble Promoted

Guy H. Trimble has been promoted to the rank of Pharmacist Director in the U. S. Public Health Service. He is presently serving as Chief, Equipment and Supply Branch, Division of Hospital Facilities, Washington, D. C.

The Division of Hospital Facilities administers the Hospital Survey and Construction Act which has approved to date about 2,335 projects, adding 110,000 beds and nearly 500 health centers.

Mr. Trimble has been active in the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS and the American Pharmaceutical Association for a number of years. Since graduating from the University of Pittsburgh School of Pharmacy in 1920, he spent several years in the Hospital and Medical Care Program of the Bureau of Indian Affairs, U. S. Department of the Interior.

Hospital Pharmacist Honored

Mr. James W. Mitchener, Chief Pharmacist at Cabarrus Memorial Hospital in Concord, N. C., was recently honored by the North Carolina Pharmaceutical Association for his work with the prevention of accidental poisoning of children. He was awarded a certificate for "exceptional meritorious service to the advancement of public health and welfare." Mr. Mitchener has prepared and delivered a paper on accidental poisoning and labeling of medications to a number of civic groups throughout the state.

Walter Chase Retires

Mr. Walter Chase, Associate Director of Advertising with the Parke, Davis and Company, retired on December 31. He had been with P. D. for thirty-four years during which time he has played an active role in pharmaceutical organizations, both locally and nationally. He is presently a member of the A.Ph.A. Council. He is a past president of the Michigan Academy of Pharmacy. Mr. Chase is also a member of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS and is well known to hospital pharmacists.

Sister Mary Berenice Honored

Sister Mary Berenice, Chief Pharmacist at St. Mary's Hospital in St. Louis, has been named as one of the recipients of the 1954 awards presented by the Alumni Association of the St. Louis College of Pharmacy and Allied Sciences. The awards are presented annually "for outstanding service to pharmacy in the Greater St. Louis area."

Sister Mary Berenice is the present treasurer of the SOCIETY and a member of the Executive Committee. She is a charter member of the ASHP and has served on numerous committees in both the local and national organizations.

Broadcast on Hospital Pharmacy

Sister Mary Junilla, Chief Pharmacist at Queen of Angels Hospital in Los Angeles recently participated in a radio broadcast over Station KFWB. When interviewed by Mr. George Baird of the California Pharmaceutical Association, Sister Junilla described her activities as a hospital pharmacist with further reference to laws affecting hospital pharmacy practice, policies regarding the filling of outpatient prescriptions, and the opportunities for women in hospital pharmacy.

Amendments to ASHP Constitution Approved

The membership of the Society has approved three changes in the Constitution and By-Laws. These changes were submitted to the membership for vote by mail ballot along with the election of officers.

The amendments provide for the following:

1. Election of the secretary for a three year term rather than a one year term. Election will be in the same manner as provided in the By-Laws, Chapter I, Article 5, that is, elected by the House of Delegates on the recommendation of the Executive Committee. Thus, the secretary elected at the 1955 Annual Meeting will serve for three years with subsequent elections for secretary being held in 1958, 1961, etc.

2. Election of the treasurer for a three year term rather than a one year term. Election will be in the same manner as provided in the By-Laws, Chapter I, Article 1, that is, on nomination at the Annual Meeting (every third year) and elected by mail ballot. Thus, the treasurer elected in 1955 and taking office in 1956 will serve for three years with subsequent elections for treasurer being held in 1958, 1961, etc.

3. The secretary, in the incapacity of the treasurer, may disburse Society funds (that is, sign checks if necessary).

These changes will be incorporated into the Society's Constitution and By-Laws and printed in a future issue of The Bulletin.

NPC Issues Publication

"I hate to buy drugs, but . . . " is the title of a publication recently released by the National Pharmaceutical Council, Inc. Intended to dispel many of the doubts relative to the high cost of drugs, the booklet is directed toward improvement of pharmacist-physician-patient relationship. It is written with a general appeal to the public to promote their understanding of some of the problems confronting the industry, and will be helpful in answering many of the questions arising relative to the cost of prescriptions.

Complimentary copies are available from the National Pharmaceutical Council, 610 Fifth Avenue, New York City 20, N. Y.

Pending Health Legislation

In President Eisenhower's health message to Congress on January 31, a legislative program was outlined with specific recommendations to be considered. The plan is designed to meet the two major health problems confronting the Nation—meeting the costs of medical care, and certain serious gaps and shortages in health services.

To help meet the cost of medical care, the President recommended that the Congress pass legislation which will:

1. Stimulate the expansion and improvement of voluntary health insurance.

2. Improve the financial arrangements for providing medical care to persons receiving public assistance.

To narrow some of the gaps and shortages in the health field the President Proposed that Congress:

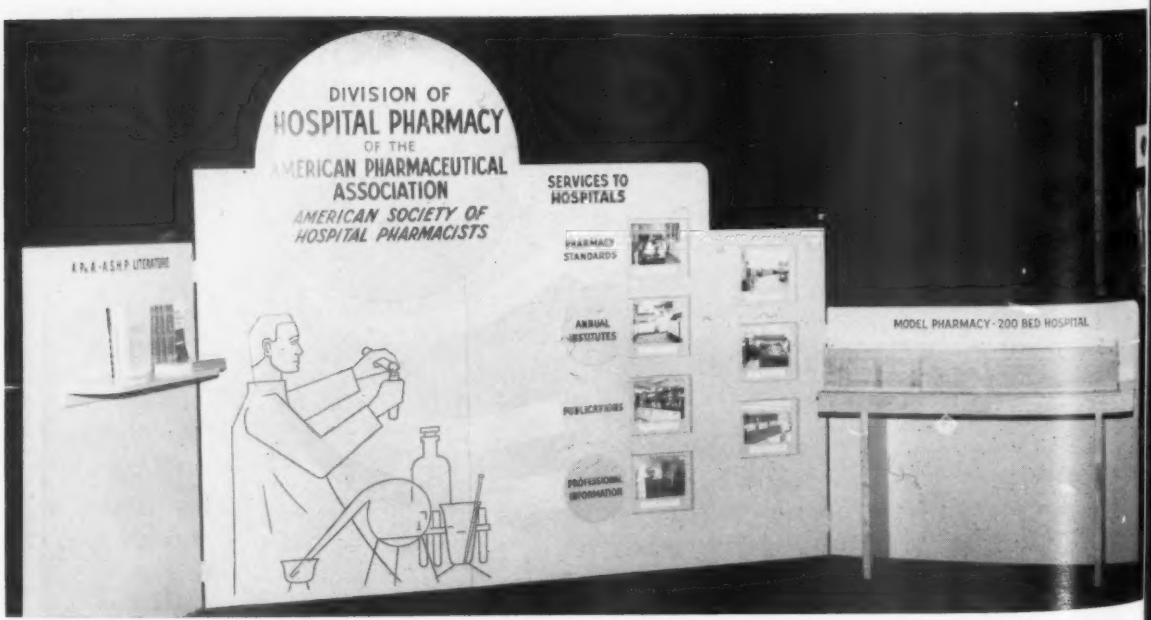
3. Stimulate the construction of various types of health facilities.

4. Alleviate shortages in the health professions.

5. Intensify mental health programs.

6. Continue to support State and local public health programs.

Exhibit Sponsored by the Division of Hospital Pharmacy - 1955



Pan-American Congress (Continued from Page 38)

Numerous social and recreational events were arranged during the Congress by The Secretary-General, Dr. Carlos H. Liberalli, and his Brazilian Organizing Committee. These included visits to schools of pharmacy, pharmaceutical laboratories, coffee plantations, the beach at Santos, the Museum of Modern Art, and dinners and dances as well as other events. The Latin American Branches of several American firms cooperated in various aspects of the Congress and their representatives were most helpful to the members of the U. S. delegation.

During a short stay in Rio de Janeiro the members of the delegation visited the American Embassy where Mrs. Anna Richard's brother, Commander Peter A. Collins-Cona is the Naval Attaché. Here the group was given a briefing on Latin American customs and traditions and assisted in numerous other helpful ways.

More than twenty other papers were presented by U. S. pharmacists to the Congress. Of these, many were given *in absentia*. The papers presented by those from the United States are as follows:

George Archambault*
The Role of the Hospital Pharmacist in Promoting Better Patient Care

E. Fullerton Cook*
All May Share the Medical Advances of the World

Lauretta Fox and A. Barnes*
Studies on the Toxicity of *Dieffembachia*

Noel M. Ferguson
Pharmaceutical Education in the United States
The Newer Concepts on the Teaching of Pharmacognosy

Franh O. Frisch
Barium Sulfate, A Problem in Pharmaceutical Formulation

Don E. Francke
The Importance of Minimum Standards for Improving Pharmacy Service In Hospitals
A Proposal for a Pan-American Hospital Formulary Service

Georgianna S. Gittinger*
History of School of Pharmacy, University of Maryland
A Tribute to Dr. E. F. Kelly

Jack B. Heinz (w/Kenneth W. Heinz)
Modern Technics in the Dispensing of Ophthalmic Solutions

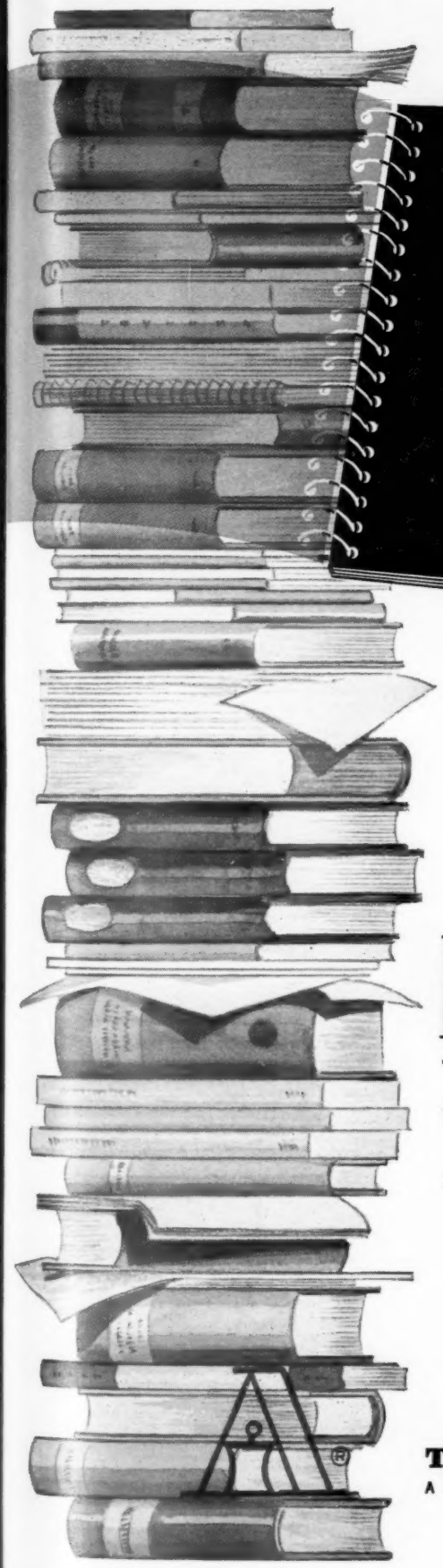
Raymond Jonnard*
Automatic Electronic Recording of Refractive Dispersion by Interferometry: A New Analytical Tool
The Orthoptic Microscope Interferometer and Its Biological Applications
Improved Clinical Apparatus for Electrophoresis in Supported Electrolytes and Chromatography
The Nature of Biological Information
A Simplified Bed-Side Chloride Ion Determination Procedure
Contributions to the Pharmacology of *Rauwolfia heterophylla Wild*

James C. Munch*
Inhalation Therapy

H. Dale Roth
Standardization, Specifications and Procurement of Drugs in the U.S. Armed Forces

Frank J. Steele*
Bulk Compounding

**In absentia*



CONVINCING EVIDENCE

Highly encouraging results in continuous long-term therapy with ACTH for periods ranging from 3½ years to 5 years are convincing evidence of its safety.[1]

ACTH appears to orient the body toward a clinical state of well-being in all conditions in which it is indicated.

HP* ACTHAR® Gel

*Highly Purified (IN GELATIN)

The Armour Laboratories Brand of Purified Corticotropin (ACTH)

SUPPLIED: In 5 cc. vials of 20, 40 and 80 Armour Units per cc. Also available in sterile 1 cc. B-D† cartridge with B-D disposable cartridge syringe —40 Armour Units.

†T. M. Reg., Becton, Dickinson & Co.

1. Wolfson, W. Q., et al.: Status of Patients Treated Continuously with Corticotropin for from 3½ Years to Over 5 Years. Report before Endocrine Society, San Francisco, June, 1954.

THE ARMOUR LABORATORIES
A DIVISION OF ARMOUR AND COMPANY • KANKAKEE, ILLINOIS

POSITIONS in hospital pharmacy

POSITIONS OPEN

OPENING for staff pharmacist in a recently established hospital pharmacy in general hospital of 550 beds located in a world famous medical center. Contact Neal W. Schwartau, Chief Pharmacist, Rochester Methodist Hospital, Rochester, Minn.

MODERN—185 bed open-staff hospital in city of 39,000 offers exceptional opportunity to young pharmacist capable assuming full responsibility for pharmacy department. Write Personnel Officer, St. Mary's Hospital, Enid, Okla.

ASSISTANT pharmacist, registered, female, for 600 bed hospital. Salary open. Address Personnel Director, St. Francis Hospital, Peoria, Ill.

The following openings in hospital pharmacy appeared in current issues of hospital publications. Anyone interested in the positions should write directly to the Agency indicated. A fee is charged when positions are secured through the services of a personal agency.

PHARMACISTS—(a) Chief. East. 250 bed general hospital. Complete supervision of pharmacy. $5400. (b) East. 140 bed hospital. Will also supervise Central Stores Department. Ideally located in resort area in town of 20,000. $6,500. (c) Assistant. Middle West. 300 bed hospital; 4 in department. $5,200. Shay Medical Agency, 55 E. Washington St., Suite 1935, Chicago 2, Ill.

Positions Open in VA

Openings for positions for hospital pharmacists in the Veterans Administration have been announced by the U.S. Civil Service Commission, Washington, D. C. According to a recent release, applications are being sought from registered pharmacists for employment in hospitals and regional offices of the Veterans Administration throughout the United States and in Puerto Rico. The salaries range from $4,205 to $5,500 a year.

To qualify for these positions, applicants must be graduates of an approved school of pharmacy and be currently registered as a pharmacist in one of the States or territories of the United States

or in the District of Columbia. For positions paying $5,060 and above, at least two years of professional experience in pharmacy is required. Satisfactory completion of a two-year pharmacy residency may be substituted for two years of this professional experience.

Full information and application forms may be obtained from many post offices throughout the country or from the U. S. Civil Service Commission, Washington, D. C. Applications will be accepted until further notice and must be filed with the Central Board of Civil Service Examiners, Veterans Administration, Washington 25, D. C.

Training Program Offered at St. Luke's in Cleveland

The following program offering postgraduate training in hospital pharmacy is being offered by St. Luke's Hospital Pharmacy Service, in Cleveland, Ohio.

1. Internship of one year for recent graduate of accredited college of pharmacy with maintenance and $75.00 a month stipend furnished. *Year begins July* 1.

2. Internship of one year for graduate of accredited college of pharmacy who is registered in Ohio (or can get reciprocity) with maintenance, $75.00 a month stipend, and in addition a Pfizer scholarship of $75.00 a month for the internship year. *Year begins* (time to be decided).

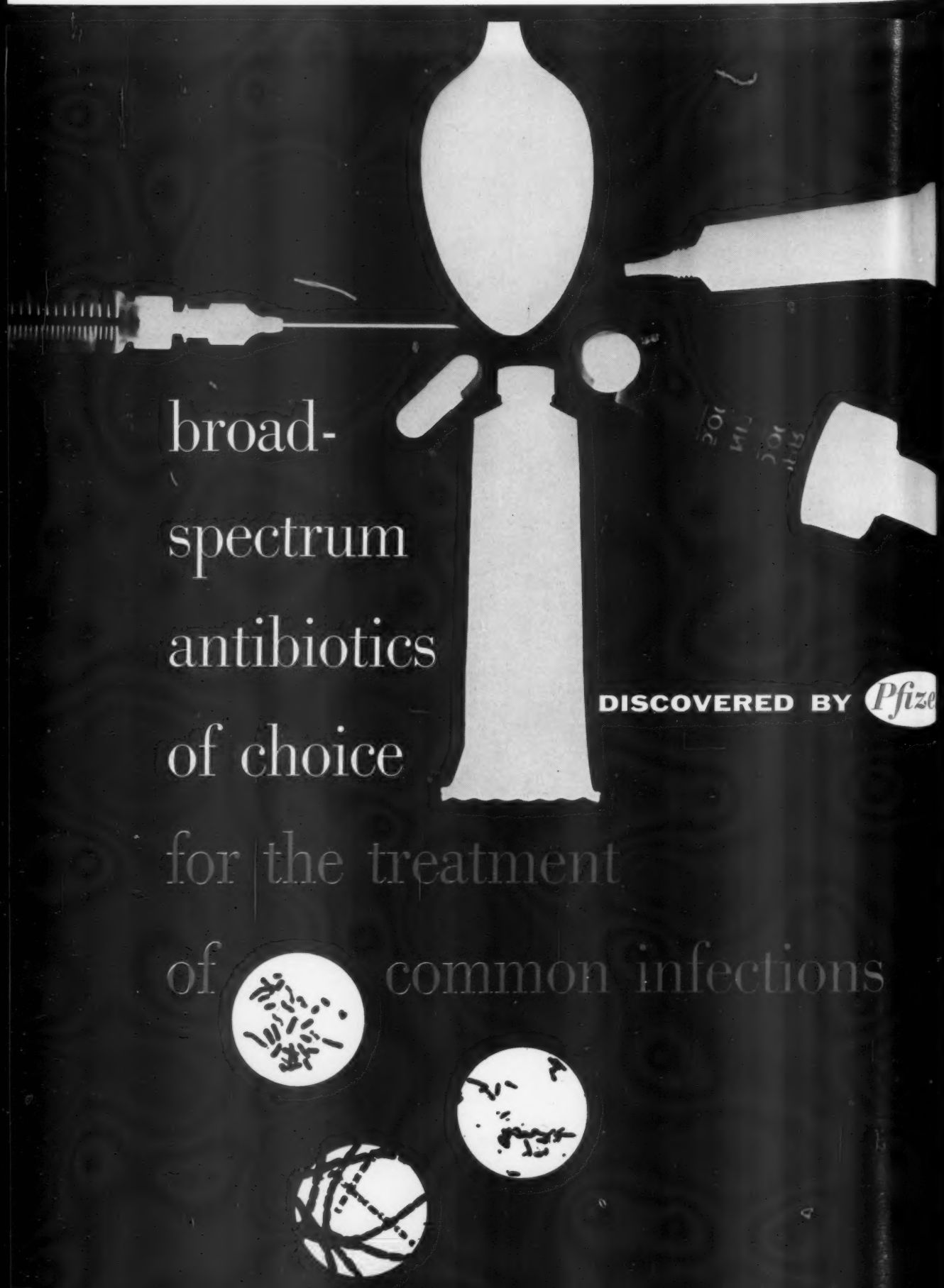
3. Postgraduate hospital pharmacy experience combined with graduate work in college for a total of 15 months. Requirements:—must be graduate of accredited school of pharmacy, at least several years of experience in a hospital pharmacy, registration in Ohio required, and must be able to matriculate in graduate school. Hospital will provide maintenance for 15 months, a $75.00 stipend for the first three months, which time would be spent in the hospital, and for the last three months which would also be spent in the hospital. The intervening nine months will be devoted to graduate work in college. In addition, a Pfizer scholarship of $75.00 a month is available for 12 of the 15 months of this combined study. 15 *months to begin in June.*

Application must be made not later than April 1. Write to Evlyn Gray Scott, Director of Pharmacy Service, St. Luke's Hospital, 11311 Shaker Blvd., Cleveland 4, Ohio.

POSITIONS WANTED

HOSPITAL pharmacist completing 2 year development of pharmacy department in 185 bed hospital desires position affording opportunity for part-time graduate study and further hospital pharmacy experience, with income to support family of 6. For further details write to R. J. Reynolds, 432 East Oak, Enid, Okla.

GRADUATE University of Wisconsin (1954) desires position as staff pharmacist in hospital. Will complete internship at Springfield City Hospital in June. Available about July 1. Address replies to Mr. Daryl Weishaar, 1067 E. High St., Springfield, Ohio.


broad-
spectrum
antibiotics
of choice
for the treatment
of common infections
DISCOVERED BY Pfize

NEW MEMBERS

January 1, 1955

CALIFORNIA

Birkbeck, Robert G., 56 Meadow Rd., Mill Valley (A)
Burston, Julius, 161 S. Daisy Ave., Pasadena
Herby, Mathilde S., 565 Montclair Ave., Oakland
Lambertson, Herman J., P.O. Box 124, Loma Linda
Sorbello, Joe C., 137 Vodden, Rialto
Spinelli, Francis R., 191 Granville Way San Francisco

COLORADO

West, Ellsworth M., 2509 Balboa St., Colorado Springs

FLORIDA

De Young, Ralph T., 1860 S.W. 18th St., Miami (A)
Rehburg, Weldon R., 3820—2nd Ave., N., St. Petersburg
White, Eneida R., 2168 N.W. 83rd St., Miami

ILLINOIS

Barnett, Mark, U.S.P.H.S. Hospital, 4141 Clarendon Ave., Chicago
Jagodzinski, Wanda E., 8109 W. 44th Ct., Lyons
Mutchnik, Meyer, 5434 N. Sawyer, Chicago (A)
Sister Jolinda Snyder, 701 E. Mason St., Springfield
Sister Valeria Messerich, 701 E. Mason St., Springfield
Steinman, Lawrence, 1431 Melrose, Chicago

INDIANA

Leist, Joanne C., Bartholomew County Hospital, Columbus

IOWA

Wunder, Eldon H., 715—4th Ave., N.W., Waverly

KANSAS

Sister Mary Andrew Talle, Providence Hospital, 18th & Barnett, Kansas City

MARYLAND

Briody, Elizabeth M., 1023 Main Ave., Hagerstown
Fehnel, Paul O. Jr., Clinical Center, Pharmacy Department., N.I.H., Bethesda
Mastriani, Joseph C., Johns Hopkins Hospital, Baltimore

MASSACHUSETTS

Hall, Judith A., 22 Dana Rd., West Newton

MICHIGAN

Khilnani, Dharam R.F., 1200 Stanley Ave., Detroit
Lancaster, J. Allen, 3701 Gratiot Ave., Flint
Mernaugh, Mary V., 9708 Nardin, Detroit

MISSOURI

Gusman, Lawrence F., 7264 Wise Ave., Richmond Heights

MONTANA

Ardueser, Gloria A., 509—7th Ave., Havre

NEW JERSEY

Mitchell, M. Lindsay, 2 E. Main St., Moorestown

NEW YORK

Cass, Simon D., 39-20—52nd St., Woodside (A)

NORTH CAROLINA

Wright, Coit, James Walker Memorial Hospital, Wilmington

OHIO

Arlow, Samuel E., 194 W. State St., Akron
Renner, Lawrence W., 803 E. Tuscarawas, Canton
Schneeberger, Paul J., 4539 Innes Ave., Cincinnati
Simon, Jean A., 902 E. Main St., Lancaster
Weiner, Jean H., 1343 Logan Ave., N.W., Canton

OREGON

Low, James B., 3972 N. Colonial Ave., Portland
Mayfield, Millicent, 822 S.W. King, Portland (A)

PENNSYLVANIA

Taliaferro, Lawrence R., 520 Black Horse Rd., Coatesville

TEXAS

Horner, Tom E., 6830 Driftwood, Houston

VERMONT

Letourneau, George R., 25 Hiawatha Ave., Essex Jct.

VIRGINIA

Bogarosh, Peter L., 6306 Morningside Dr., Richmond
Herath, John H., U.S.P.H.S. Hospital, Hampton Blvd., Norfolk

WASHINGTON

Gamido, Loita S., 815—17th Ave., Seattle

WEST VIRGINIA

Miller, John R., 146 Norway Ave., Apt. No. 1, Huntington

WISCONSIN

Blanchard, Carroll J., 3024 Wright Ave., Racine
Feldman, Joseph A., 616 N. Lake St., Apt. 3B, Madison (A)
Sister M. Mechtilde, 1020 Market St., La Crosse
Sister Mary Natalie (Krauss), 3221 S. Lake Dr., Milwaukee
Webster, Karna C., 5727 Dogwood Pl., (Crestwood) Madison

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Ko, May K., 515 The Peak, Hong-Kong

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